AN EXAMINATION OF MIDDLE SCHOOL AGRICULTURAL EDUCATION PROGRAMS IN THE UNITED STATES

A Thesis

by

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Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

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August 2015

Major Subject: Agricultural Leadership, Education, and Communications

ABSTRACT

The purpose of this study was to evaluate the status of middle school agricultural education programs in the Unites States and describe any changes in the past twenty-five years. This study sought to establish enrollment and FFA membership numbers, identify components of middle school agricultural education, and identify advantages and disadvantages of middle school agricultural education programs. This study was descriptive in nature and was a census of all 50 state and Puerto Rico FFA leaders (N= 51). A response rate of 84.31 % was achieved (n=43). The respondents completed an online survey using Qualtrics™. The survey was a total of 34 questions including 12 multiple choice/check all that apply questions, 16 fill in the blank questions, four Likert type questions and two question regarding the state the respondent represented.

In this study, 32 (74%) state FFA leaders reported they have middle school agricultural education programs. The results of the study showed that middle school agricultural education enrollment numbers have grown from 52, 968 to 107,856 in the past twenty-five years. However, the percentage of students who are middle school FFA members is still minimal (27%). State FFA leaders reported agricultural literacy and career exploration are still the most popular topics covered in these middle school agricultural education programs. State FFA leaders indicated these programs increase career awareness and increase self-esteem in middle school students. Lastly, the majority of state FFA leaders (77%) feel enrollment in middle school agricultural education programs can increase enrollment in high school agricultural education programs.

ACKNOWLEDGEMENTS

Never in my wildest dreams did I think I would go to graduate school, much less write a thesis. I have so many people to thank for guiding me through graduate school, writing a thesis and this thing called life.

I first want to thank Rosemarie Rossetti for allowing me to replicate her study and modify and adapt her questionnaire.

I want to thank my parents, Larry and Tiffany Adair for always pushing me to be absolute best I could be. Y'all have made me the perfectionist and competitor that I am. Even though y'all rarely knew what I was doing in graduate school, y'all continued to tell me I could do whatever I set my mind too. You two are the best educators that I know and I hope I can impact as many students' lives as y'all have.

To the many friends I made here while working at AGLS and graduate school: Lockie, Vanessa, Clay and Kasee. Thank you, thank you, thank you for always answering my countless questions. I learned so much from each of you and I seriously don't know how I would have made it without you guys. There was never a dull moment while working with y'all. I'll miss our lunch dates and how y'all would make fun of me for eating healthy. Thank you guys for keeping graduate school entertaining.

Dr. Rayfield, thank you so much for not only encouraging me to attend graduate school, but write a thesis. I seriously doubted my abilities, but you have always been such a constant source of encouragement. Thank you for allowing me to pop in your office at random times and always answering my crazy questions. I seriously admire

how you always have students' backs and will fight for what you believe in. You never fail to make me laugh and I can't wait to continue our relationship as I move on in my career.

To the rest of my committee: Dr. Edney and Dr. Murphy, thank you for taking this girl in, allowing her to work on a welding curriculum project and dedicating your time to my research. I am grateful to have worked for some of the most entertaining men in the ALEC department. Dr. Edney, I'm not sure what I will do once I'm not across the hall from you. Who will I discuss the latest current events with? Thank you so much for always praising my work (even when it probably didn't deserve it). You have been a fabulous mentor and friend and I know we will be seeing each other down the road! Dr. Murphy, thank you for always keeping me laughing and shooting me straight. I've thoroughly enjoyed working for you and getting to know you this past year. I know our paths will cross again soon. Dr. Juntune, thank you for taking the time out of your schedule to participate in my research. I know things have been crazy for you lately, so I really appreciate your dedication. You light up the classroom when you walk in, and I hope I can model some of your positivity when I am a teacher.

Last, I would like to thank God for blessing me with this opportunity. The Lord knows what he's doing at all times and he certainly knew what he was doing when he placed me in graduate school working with all these wonderful people.

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CHAPTER I

INTRODUCTION

Rossetti (1992) reported there were 1,547 schools with middle school agricultural education programs in the United States and 52,968 students were enrolled in those programs. Today's students are further removed from a production agriculture experience (Fritz & Moody, 1997). For the United States' future, it is important to expose middle school students to agriculture and increase agricultural awareness and literacy. "With agriculture being the largest employer in the world, it seems unfathomable to not include this area in a middle school curriculum" (Schwartz, 2009, p. ii). Middle school is the optimum time to inspire students to learn (Faulkner, Steward & Baggett, 2006). Many times, middle school agricultural education programs are the initial point of contact, the beginning steps, to agricultural literacy and career exploration. Middle school agricultural education is distinctly different than high school agricultural education programs. Little research has been conducted to examine and understand middle school agricultural education and its role. This study will examine the status of middle school agricultural education in the United States.

Purpose

Middle school agricultural education is valuable to today's schools (Hadsock, 2009). Rossetti (1992) conducted a study "A Nationwide Examination of Middle School Enrollment in Agricultural Education and Membership in the National FFA Organization" to establish baseline information on middle school agriculture education.

It is necessary to revisit this study and evaluate middle school agriculture education over two decades later. This study was designed to collect middle school agricultural education enrollment numbers, program lengths, FFA membership, and funding from each state. It was necessary to see what changes, if any, in middle school agricultural education have occurred over recent years. The purpose of this study was to evaluate the status of middle school agricultural education programs in the United States and describe any changes in the past 25 years.

Theoretical Framework

The theoretical framework of study is based upon Piaget's cognitive development theory. Piaget (1950) identifies four stages of cognitive development. These stages are 1. Sensorimotor, 2. Preoperational, 3. Concrete Operational, 4. Formal Operational. Huitt and Hummel (2003) define the stages as follows:

1. Sensorimotor- "(Infancy). In this period (which has 6 stages), intelligence is demonstrated through motor activity without the use of symbols. Knowledge of the world is limited (but developing) because it's based on physical interactions / experiences. Children acquire object permanence at about 7 months of age (memory). Physical development (mobility) allows the child to begin developing new intellectual abilities. Some symbolic (language) abilities are developed at the end of this stage." (para. 10)
2. Preoperational- "(Toddler and Early Childhood). In this period (which has two substages), intelligence is demonstrated through the use of symbols, language use matures, and memory and imagination are developed, but thinking is done in a

nonlogical, nonreversible manner. Egocentric thinking predominates." (para. 11)

3. Concrete Operational- "(Elementary and early adolescence) In this stage (characterized by 7 types of conservation: number, length, liquid, mass, weight, area, volume), intelligence is demonstrated through logical and systematic manipulation of symbols related to concrete objects. Operational thinking develops (mental actions that are reversible). Egocentric thought diminishes." (para. 12)
4. Formal Operational- "(Adolescence and adulthood). In this stage, intelligence is demonstrated through the logical use of symbols related to abstract concepts. Early in the period there is a return to egocentric thought. Only 35% of high school graduates in industrialized countries obtain formal operations; many people do not think formally during adulthood." (para. 13)

Middle school students enter middle school at the concrete operational stage, ages 7-12 and are transitioning to the formal operation stage, ages 12 and older (Rappa, 2012). In the meantime, middle school students fall in between these two very distinct stages. While students are in the concrete operational stage, abstraction is difficult for students to understand (Garlick, 2010). One of the most difficult experiences for teaching early adolescents is helping them transition from concrete to formal operations during the middle school years (Brown & Canniff, 2007). Young adolescent learners build upon prior learning and experiences (Piaget, 1960). These students need concrete concepts in order to insure understanding. During their middle school time, students are assisted in transitioning into the formal operational stage, where they will function the result of

their adult lives (Rappa, 2012). However, what makes middle school so different from any other schooling is students grow and develop physically, emotionally and socially all at different rates and times (Lounsbury & Vars, 2003) Middle school classes could include men, women, girls, boys and everything in between (Lounsbury & Vars, 2003). This is why it is important for educators and curriculum specialists to understand the development of middle school students.

Objectives

The research objectives of this study are as follows:

1. Describe basic information relating to middle school agricultural education (enrollment numbers, number of schools with middle school agricultural education, length of programs, number of middle schools with FFA, dues and funding).
2. Describe components of middle school agricultural education programs (topics taught, participation in FFA contests, opportunities for students and involvement with SAE).
3. Identify advantages and disadvantages of middle school agricultural education programs as perceived by state FFA leaders.
4. Explore the relationship between enrollment in middle school agricultural education programs and high school agricultural education enrollment as perceived by state FFA leaders.

Definition of Terms

The following terms have been operationally defined for the purpose of this study**.**

- Agriculture-"the science, art, or practices of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products" (Merriam Webster, 2014)
- Middle school - schools typically between elementary and high school for grades 6, 7 and 8. (For the purpose of this study, middle school and junior high will be used interchangeably.)
- Agricultural education - a "systematic program of instruction available to students desiring to learn about the science, business and technology of plant and animal production and/or about the environmental and natural resources systems using both classroom and laboratory instruction (Public Schools of North Carolina, 2014).
- Middle school agricultural education program - agricultural education programs for grades 6-8 that focus on "exploring and stimulating interest in the world of work in the agricultural industry through prescribed classroom and laboratory experiences designed for basic understanding, introductory skill development, agricultural literacy and personal development" (Georgia Department of Education, 2005).
- FFA - FFA is an intra-curricular organization that is the leadership component of agricultural education (National FFA, 2014a).
- Supervised Agricultural Experience (SAE) - is the experience-based (experiential learning) learning component of agricultural education that is supervised by an agricultural science teacher (National FFA, 2014b).

- Career Development Events (CDE)- contests for FFA members where "events are designed to help a member prepare for a career in agriculture by testing and challenging the student's technical, leadership, interpersonal and teamwork skills as well as their knowledge of the subject matter" (Texas FFA, 2014a, para. 1).
- Leadership Development Events (LDE)- contests for FFA members where "events focus on creating situations for members to demonstrate their abilities in public speaking, decision making, communication and their knowledge of agriculture and the FFA organization" (Texas FFA, 2014b, para.1)
- Classroom instruction- "the foundation for everything else that occurs in agricultural education. Instruction can also be called contextual learning" (Talbert, Vaugh, Croom & Lee, 2014, p. 6)
- State FFA leaders- individuals who work for their state FFA Association and have access to membership and enrollment numbers. Their job titles can include: state executive director, executive secretary, state advisor, agricultural education specialist, state supervisor, state FFA coordinator, etc. Due to state-to-state differences, these individuals can be housed at state FFA offices, land-grant institutions, and state's department of education.

Limitations

Limitations to this study include surveying states' FFA leaders and not middle school agricultural education teachers. They could have different perceptions of middle school agricultural education than middle school agricultural science teachers. Also, many states do not have a strong presence of middle school agricultural education

programs. These states could be non-responders and could possibly skew some quantitative data and limit the generalizability to the target population. It is also possible states with a large population of middle school students could be non-respondents and could limit the amount of data collected. Another limitation of this study was that not all local school districts reporting their middle school agricultural education programs to the state FFA leaders. The state FFA leaders may not have any information or enrollment numbers for these programs. Their numbers could be just pure estimates and not concrete. Some possible extraneous variables are that state FFA leaders do not want to release information or states classifying 8th grade agricultural students as high school agricultural students and not considering them a middle school agricultural education program. The researcher will have to ensure the operational definition for middle school agricultural education is clear to the state FFA leaders in order to receive accurate data.

Assumptions

This research study was conducted under the following assumptions.

1. The state FFA leaders provided accurate and honest enrollment numbers.
2. Middle school agricultural education programs are reported to state FFA leaders.
3. The state FFA leader is the point of contact for this information.
4. The instrument was valid and measures the appropriate data for this study.

Significance of the Problem

Little research has been conducted about middle school agricultural education in recent years. Many middle school programs exist today and it is important to understand their contribution to agricultural education as a whole. Agricultural awareness and

literacy has become an issue as our society becomes further removed from agriculture. Researchers indicated agricultural literacy is a main focus in middle school agricultural education (Fritz & Moody, 1997). Many researchers have suggested middle school students learn best through activities and experience and middle school agricultural education course provides a place to practice experiential learning with Supervised Agricultural Experience (SAE). Luft (1990) suggested that instruction in middle school agricultural education should be activity centered.

Middle school agricultural education provides real world, hands-on skills that help suggest someone truly understands the topic (Schwartz, 2009). In addition, middle school agricultural education programs can be the starting point for many students interested in the agricultural field (Rayfield & Croom, 2010). It is important these students become effectively engaged at an early age in order to reach their fullest potential in the industry. Another aspect of this study is to determine if states' FFA leaders believe middle school agricultural education enrollment has any influence on high school agricultural education enrollment and involvement. If so, high school agricultural science teachers could use these programs as a recruitment tool. This study will attempt to identify some advantages and disadvantages of middle school agricultural education and possibly impact other schools and states middle school agricultural education programs.

This study sought to discover some benefits of middle school agricultural education programs. State departments of education may be able to use data from this research and possibly implement more middle school agricultural science programs.

States with large enrollment numbers and participation in middle school agricultural education programs could serve as examples for those who have not yet established a large number of middle school agricultural education programs (Rossetti, 1992). State FFA leaders from each state can use this study to plan more activities for middle school FFA students (Rossetti, 1992).

CHAPTER II

LITERATURE REVIEW

Introduction

A detailed literature review was conducted by the researcher in order to identify relevant research as well as theoretical framework to support the purpose and need for this study. The review of literature addressed the need for middle school agricultural education programs, defining middle school, history of middle school agricultural education programs, and benefits and disadvantages of middle school agricultural education programs.

Need for Middle School Agricultural Education Programs

"Currently 97% of the U.S. citizens do not live on a farm or are not engaged in production agriculture" (Fritz & Moody, 1997, p. 61). Agricultural literacy can be defined as being able to understand the food and fiber system, including its history and current economic, social, and environmental significance (Rossetti & McCaslin, 1994). Agricultural literacy is a huge issue our society faces today (Gibbs, 2005). Many students cannot tell you where their food comes from. "With agriculture supplying the necessities of life, it is vital that we educate about the social and environmental impact of agriculture throughout our nation" (Schwartz, 2009, p. 14). To address this issue, many states have implemented agricultural programs for elementary and secondary schools. According to Camp, Broyles and Skelton (2002), 573 teachers in the United States teach middle school agricultural science exclusively. These programs are extremely vital for agricultural

literacy because only 4.5% of high school students enroll in agriculture education classes (Terry, Herring & Larke, 1992). “Agriculture is too important a topic to be taught only to the relatively small percentage of students considering careers in agriculture and pursuing vocational agriculture studies” (National Research Council, 1988, p. 1; Terry et al., 1992, p. 51).

Middle School

Initially, public education was strictly elementary education for children and secondary education for adolescents (Lounsbury & Vars, 2003). A little over a 100 years ago, middle schools were created. (Lounsbury & Vars, 2003). Educators began to recognize early adolescence as a specific developmental period that need their own schooling system (Lounsbury & Vars, 2003). Middle schools are defined multiple different ways and include different grade levels nationwide. It is up to local districts to determine what grades form “middle school”. For the purposes of this study, middle school includes grades sixth- eighth.

Middle schools are a completely separate division of education due to the disposition of their students. “Middle schools possess neither the characteristics of an elementary school nor those of a high school, and yet are charged with the responsibility of paving a smooth path for students to transition successfully from elementary school to high school” (Rayfield & Croom, 2010, p. 131). Children do not leave childhood and enter adulthood next, but “rather there is a between the two this major period of transition covering roughly ages 10 to 15” (Lounsbury & Vars, 2003, p. 7). Young people experience more profound changes between the ages of 10 and 15 than they do at

any other time in their life (National Middle School Association, 2003). Fundamentally, middle school students go through developmental changes physically, emotionally and socially, all of which can affect their educational experience.

According to Erikson's Social-Emotional Development theory (1968), there are eight stages to discovering adulthood and one's identity. The stages specific to middle school children are industry vs inferiority (ages 10 to 11) and identity vs. role confusion (ages 12 to 15) (Caskey & Anfara, 2007). Much like Piaget's (1950) cognitive development theory middle school students enter middle school in one stage and leave in another (Rayfield & Croom, 2010). Middle school is the place for transition and development. In stage five of Erickson's theory, students feel the need to develop a unique identity (Rayfield & Croom, 2010). Children are becoming more independent and looking towards their career and future. In early adolescence, students are more interested in real life experiences and authentic learning opportunities (Caskey & Anfara, 2007; Kellough & Kellough, 2008). In addition, according to Anderman and Maehr (1994), it has also been noted that the middle grades are the time for heightened awareness of adulthood and career possibilities.

Piaget (1950) indicates cognitive development occurs in stages. Middle grade students lie in between the concrete and formal operational stages. They sometimes struggle to understand abstractions (Garlick, 2010) The National Middle School Association (2003) recommended that teachers implement concrete experiential learning experiences in order to help students develop the best, intellectually (Golden, 2013). "Middle grades are a time of self-discovery and teaching methods should reflect this"

(Hadsock, 2009, p. 13). Middle school educators identify the differences between their students and that of elementary and high school students. “Understanding the developmental stages of these young people can help educators develop programs better suited to meet their unique needs” (Rappa, 2012, p. 29) These teachers receive specific preparation to teach the middle grades due to the uniqueness of their students. Eichhorn (1966) suggested it is vital that their instruction, assessment, and the environment of the school is developed with this transition of human development in mind (Caskey & Anfara, 2007).

Physically, middle school students undergo more growth than they have since infancy (Eichhorn, 1966). Surging hormones and rapid physical development can lead to teens feeling uncomfortable in their own skin which in turn can trigger emotional development in these students (Golden, 2013). These changes result in self- confidence issues that can negatively impact the student’s ability to apply themselves academically (Chung, Elias & Schneider, 1998; Rappa, 2012). Teachers seek to develop curricula that helps build students’ self- esteem. (Caskey & Anfara, 2007). Therefore, middle school agricultural science teachers should pay particular attention to helping build self-concept in their students at this unique stage of development. According to Luft and Armenta, “the design of agricultural education program provides an excellent means of building self-concept” (1994, p. 4).

Teaching middle school and high school students are two completely different entities. According to Birman, Desimone, Porter and Garet (2000) teachers do not find professional developments that are not grade specific to be useful. Studies have shown

that intellectual engagement occurs when students are actively engaged in the learning process (Caskey & Anfara, 2007; Jackson & Davis, 2000: Lounsbury, 2009; Rappa, 2012). “If one wants to see cutting edge professional practices, increased student involvement, student-centered classrooms, teachers working together as collegial professionals, go to a middle school” (Lounsbury & Vars, 2003, p. 9). Agricultural education classes provide a great setting to use hand-on learning activities with SAE being one of the three components of agricultural education.

History of Middle School Agricultural Education Programs

Middle school agricultural education programs have been officially recognized since 1988. “In 1988, the National FFA Organization made a change to their constitution to allow middle school students FFA membership” (Golden, Parr & Peake 2014, p. 222). Many of these programs were created due to the decreasing enrollment numbers in agricultural science classes in the early 1990s (Rossetti, 1992). It was believed that middle school programs could help turn that trend around. According to Rayfield and Croom (2007), middle school programs could help increase FFA membership numbers. Additionally, middle school agricultural education classes ensured a rural agricultural science teacher would have a full-time position with declining class enrollment numbers (Luft, 1990). The establishment of middle school agricultural education programs is notable because investing in students during this stage of development can have serious and lasting effects on shaping their career choices. “Many students make their first decisions about career options in middle school or junior high school, when they choose courses that will help prepare them for a cluster of career choices” (National Research

Council, 1988, p. 22). Middle school agricultural education programs are important to expose students to these opportunities. Many agricultural education teachers believe that middle school agricultural education programs can assist in increasing enrollment numbers for agricultural education programs and boost FFA membership (Rossetti, 1992).

Benefits of Middle School Agricultural Education

Vocational agricultural education can be defined as systematic instruction in agriculture at the elementary, secondary, post-secondary, or adult level for the purpose of preparing students for entry into careers in agriculture (Phipps & Osborne, 1988; Rossetti, 1992). Currently, agricultural education is most popular in grades 9-12. However, with the increase of students who are further removed from the agricultural industry, more emphasis has been placed on agricultural programs and activities for middle school and elementary students. Frick (1993) reported "agricultural literacy and agricultural topic exploration as two thematic goals of said programs" (Rich, Duncan, Navarro & Ricketts, 2009, p. 14). In addition, agricultural education benefits the students by increasing leadership development and agricultural literacy (Fritz & Moody, 1997; Hadsock, 2009). According to Phipps and Osborne (1988), over 22 % of all secondary agriculture instructors taught one or more middle school courses in agriculture in 1985 (Rossetti, 1992). It is believed that middle school agricultural education programs can contribute to growth in FFA membership numbers and serve as recruitment for high school programs. "Students who discover the new world of agricultural science in the middle school classroom may choose to continue their journey into this new world by

enrolling in the high school agricultural education program" (Rayfield & Croom, 2010, p. 138). In addition, middle school agricultural education programs may spark an interest for some students who had not previously planned on studying agriculture (Luft, 1990).

Hedrich (1985) states it is an important step to expose 7th and 8th grade students to agricultural education before they reach their freshman year. It is important to note that middle school programs are not just smaller versions of high school programs (Hillison, 1994). Middle school agricultural education programs are intended to be planned and outlined differently than high school agricultural education programs. Since middle school students are at a completely different stage of development, Frick (1993) recommended that middle school agricultural education curriculum should be distinctly different than that of high school programs. Flanders (1998) also reported middle school teachers and administrators stress middle school students need different activities and tasks than high school students (Golden, Parr, & Peake, 2014). It has been reported that students who enroll in middle school agricultural education have a better understanding of agriculture and are more informed about occupations in agriculture than those who did not enroll (Rossetti & McCaslin, 1994). The implementation of middle school agricultural education has allowed students to learn math and science in school with a real world application (Rich, Duncan, Navarro & Ricketts, 2009). Stevens (2007) reported that middle school students who have an agricultural education program at their school scored higher on the science portion of the Criterion-Referenced Competency Test (CRCT) (Hadsock, 2009). "Research findings have supported the

argument that the integration of science into agricultural curriculum is an effective way to teach science" (Rich, et. al., 2009, p. 15). According to Rich, Duncan, Navarro and Ricketts (2009), Georgia middle schools with agricultural education programs had higher percentages of students meeting the standards on the CRCT science test than middle schools without agricultural education programs. Also, involvement in middle school agriculture education can be beneficial for supervised agricultural experience (SAE) purposes. Students can begin their experience in middle school and blend it into a high school experience.

Disadvantages of Middle School Agricultural Education

Rossetti (1992) reported middle school agricultural education teachers feel that students burn-out on agricultural education in middle school and do not enroll in high school. Executive secretaries feel that middle school programs could increase student to teacher ratio, and could decrease participation in upper grades (Rossetti, 1992). Lastly, students could have a bad experience due to teachers lacking preparation to teach middle school students, the potential of duplication courses with secondary courses and there is increased competition with other elective courses (Rossetti, 1992). Teachers also cite that program length is an issue that needs to be addressed (Rossetti, 1992). Lack of curriculum is a major disadvantage that many researchers have tried to address. Frick (1993) conducted a study to address this issue. This study sought to develop a national framework for middle school agricultural education (Frick, 1993). However, some states still struggle due to lack of curriculum for middle school agricultural education courses. Rossetti (1992) also reported that middle school students need more opportunities to

compete in contests. Rayfield and Croom (2010) reported that middle school agricultural education teachers in North Carolina felt that there should be more recognition at the regional and state level for middle school FFA accomplishments. Also, these teachers felt that Career Development Events should be made more middle school friendly and not treated as mini high school contests (Rayfield & Croom, 2010).

Summary of Literature Review

Middle school agriculture education has been occurring in schools across the United States for many years. These programs are completely different from high school agricultural education programs and deserve their own research and examination because of the uniqueness of their students and programs. These programs help increase agriculture literacy and career exploration for our future society.

CHAPTER III

METHODOLOGY

Introduction

To accomplish the research objectives stated in chapter 1, the researcher followed a detailed plan and methodology. The research design, subject section, instrumentation, data collection and data analysis are addressed below.

Research Design

After 25 years of little research, it is necessary to update the status of these valuable middle school agricultural education in the United States in order to understand what they provide to students, National FFA and our society. Descriptive research is designed to explain the current status of a specific variable (Frankel & Wallen, 2009). Frankel and Wallen (2009) stated that descriptive research "describes a given state of affairs as fully and carefully as possible" (p. 14). This study was descriptive with a cross-sectional design. Cross-sectional survey collects information from a pre-determined population. (Frankel & Wallen, 2009). All data is collected at just one point in time (Frankel & Wallen, 2009). "When an entire population is surveyed, it is called a census" (Frankel & Wallen, 2009, p. 391). This survey was sent to the FFA leader in all 50 states and Puerto Rico (N=51). This study collected data using an online survey system called Qualtrics™.

Subject Selection

This online survey was sent to all state FFA leaders in the United States to

determine baseline information about middle school agriculture education. State FFA Leaders were selected as the subjects due to their involvement and access to enrollment numbers and other baseline information. State FFA leaders are defined as either a state FFA advisor, executive secretary/director or an employee of the department of education who is an agricultural education specialist. State FFA leaders email addresses' were obtained from each state's FFA website. All emails were sent to those addresses. A pre-notice email was sent out to each state's perspective leader (N=51).

Instrumentation

The survey was developed by a panel of teacher educators and use both quantitative and qualitative data. Many of the questions on this instrument are adaptations from Rossetti's (1992) "A Nationwide Examination of Middle School Enrollment in Agricultural Education and Membership in the National FFA Organization". Rossetti was contacted via email and granted the researchers permission to modify and adapt her instrument for this study. This survey includes some additional questions addressing additional opportunities for middle school agriculture education students, while also using data collected by Rossetti initially (1992).

This instrument contains items divided into the following constructs: Schools, Students, Length of Program, FFA Membership, Curriculum, Contests, Funding and Perception. There were a total of 34 questions on this survey. There were 12 multiple choice/ check all that apply questions, 16 fill in the blank questions, four Likert type questions, and two questions regarding which state they represent. Reliability was analyzed and calculated post hoc for the Likert type questions and a reliability score of

.66 was calculated using Cronbach's Alpha. According to Nunnally (1978), in the early stages of research and through instrument development, it may be acceptable to have only modest reliability, defined as 0.60-0.70. Respondents were asked to answer questions that addressed enrollment numbers, membership numbers, coursework, availability of contests, funding, advantages and disadvantages all related to middle school agricultural education in each state. The target population for this study was state FFA leaders in the United States. This survey was a census sent to the population (N=51) including an FFA leader (executive secretary, director or advisor), from each state. Rossetti (1990) reported a panel of teacher educators determined the content validity of the instrument. A panel of experts then validated the modifications and additions to the instrument for this study. There were no known threats to internal validity.

Data Collection

This study used Dillman, Smyth, and Christian's tailored design method for data collection (2009). The survey was created on Qualtrics™, an online survey system that allows researchers to create and distribute surveys, and collect data.

For this study, the researcher used five points of contact for this study (Dillman, Smyth & Christian, 2009). The first contact was a pre-notice email asking for their participation procedures of the study and a short description of the study. The survey link was sent out via Qualtrics™, three business days following the recruitment email. Follow up emails were sent out once a week for the next four weeks in order to encourage responses. Dillman, Smyth and Christian (2009) recommended using multiple

contacts and to vary the messages used in each email to increase response rate. During the final two follow up emails, the researcher had the emails sent out from John Rayfield because Dillman, Smyth and Christian (2009) suggested sending an email from an important individual could help increase the number of responses. All data collected was stored within Qualtrics™.

Data Analysis

The data collected from this survey was analyzed using Statistical Package for Social Sciences (SPSS), Microsoft Excel and Qualtrics™. Percentages and frequencies were calculated for multiple choice questions and mean and standard deviations were calculated for each of the Likert type questions. For open-ended questions, responses were reduced in categories and frequencies were calculated.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to evaluate the status of middle school agricultural education programs in the United States and describe any changes in the past 25 years. The findings of this study are reflected from the research objectives stated in chapter one. Descriptive statistics were calculated and used to report the findings of this study.

Description of the Population

There were 51 state FFA leaders invited to participate in this study from all 50 states and Puerto Rico. Forty-three (n= 43) surveys were completed. The response rate for this study was 84%.

Objective 1: Describe Basic Information Relating to Middle School Agricultural Education

The purpose of this research objective was to describe baseline information relating to middle school agricultural education programs nationwide. The results for research objective one were analyzed and reported in four sections (Enrollment, Membership, Length of Program, and Dues and Funding). The data are reported in tables 1, 2, 3 and 4, using sums, frequencies and percentages.

Enrollment in Agricultural Education

The first part of research objective one sought to establish enrollment numbers in middle school agricultural education programs in the Unites States. Out of the 43

respondents, a total of 32 states (74%) reported having middle school agricultural education programs, while eleven states (26%) reported they did not have any middle school agricultural education programs. The top five states that reported the highest enrollment numbers were Georgia with 30,458 students, Florida with 17,394 students, Virginia with 13,814 students, Missouri with 13,167 students and Delaware with 6,097 students. Eight states (25%) reported enrollment in 6th grade, 23 (72 %) states reported enrollment in the 7th grade and 24 states (75%) reported enrollment in the 8th grade. Additionally, state FFA leaders reported 442 teachers exclusively teach middle school agricultural education. Table 1 shows the total number of schools and total number of enrollment in 6th, 7th and 8th grade middle school agricultural education programs in the 32 states that reported enrollment numbers.

Table 1

Number of Middle Schools with Agricultural Education Programs and Number of Students Enrolled in those Programs (n=32)

Grade Levels	Schools with Agricultural Education	Students enrolled in Agricultural Education
6th	389	24,865
7th	945	31,917
8th	1,550	51,074

FFA Membership

The second section of research objective one sought to establish FFA membership numbers for middle school students. Out of the 32 states with middle school agricultural education programs, 27 states (84%) reported having official FFA membership for middle school students. Overall, respondents reported a total of 1,230 schools offered official FFA membership to middle school students. The top five states that reported the largest middle school FFA membership numbers were Georgia with 9,284 members, Florida with 6,414 members, Oklahoma with 4,643 members, Virginia with 2,510 members and Wisconsin with 2,408 members. Table 2 shows the total number of FFA members in each grade level. Of the total 107,856 students enrolled in middle school agricultural education classes in the three grades levels, 29, 395 (27%) were official FFA members.

Table 2

Number of Middle School FFA Members (n=32)

Grade Levels	Students that are FFA Members
6th	5,430
7th	8,408
8th	15,557
Total	29,395

Typical Length of Program

The third section of research objective one sought to determine the typical length of middle school agricultural education programs. The 32 state FFA leaders with middle school agricultural education programs where asked to indicate the typical length of their state's agricultural education programs. For this question, state FFA leaders could select all apply from the following options: 6 weeks, 9 weeks, one semester, one full school year and other. Majority of respondents checked one semester (f=18) or nine weeks (f=16). Additionally, two respondents selected other and indicated their programs were 12 weeks or 18 weeks. One respondent did not respond to this item. See Table 3 for the frequencies.

Table 3

Typical Length of Middle School Agricultural Education Programs (n=31)

Length of programs	*f*
6 weeks	9
9 weeks	16
One semester	18
One full school year	15
Other	2

Note: Respondents could check all that applied.

Dues and Funding

The fourth and final section of research objective one sought to determine how middle school agricultural education programs are funded. State FFA leaders were asked if they require FFA dues for middle school FFA members. Twenty-five state FFA leaders reported (78%) yes, they collect dues from middle school FFA members and 7 states (22%) reported no, they do not collect dues. The amount of dues ranged from $5 to $17.

The 32 state FFA leaders were asked to indicate the type of funding they used to finance their middle school programs. Respondents could select all that apply out of the following choices: federal funds, state funds, local funds and other. Eight states reported they used federal funds, 19 states reported they used state funds, 28 states reported they used local funds and four states reported other. State FFA leaders that indicated other specified by reporting students do fundraisers to help cover dues/or costs. Two state FFA leaders did not respond to this item. Table 4 reports the frequencies.

Table 4

Funding Used for Middle School Agricultural Education Programs (n=30)

Funding Type	*f*
Federal funds	8
State funds	19
Local funds	28
Other	4

Note: Respondents could check all that applied.

Objective 2: Describe Components of Middle School Agricultural Education Programs

The purpose of this research objective was to describe components of middle school agricultural education programs. The results for research objective two were analyzed and reported in four sections (Organization of FFA Chapters, Curriculum, State Level CDEs, and Opportunities). The data are reported in tables 5, 6, 7, 8 and 9, using frequencies and percentages.

Organization of FFA Chapters

The first section of research objective two sought to identify how middle school FFA chapters were organized. Out of the 32 states with middle school agricultural education programs, nine (28%) of the state FFA leaders indicated that their middle school FFA chapters are organized separately from the high school chapter. Ten state FFA leaders (31%) reported their chapters are joint chapters between the middle school and the high school, while 13 states (41%) indicated other and specified otherwise. State FFA leaders who selected other indicated they "do not have middle school chapters", "have both joint and separate chapters", or "if the middle school is located on a different campus, then the chapter must be a separate charter from the high school". To see the full list of text responses, please see appendix B.

Table 5

Organization of FFA Chapters (n=32)

Chapter Organization	*f*	*%*
Separate chapters from high school FFA	9	28
Joint chapters with high school FFA	10	31
Other	13	41

Curriculum

The second section of research objective two sought to identify what topics were covered in middle school agricultural education courses. State FFA leaders were asked to report if their state had curriculum or standards for their middle school agricultural science courses. Out of the 32 states with middle school agricultural education programs, thirteen (41%) states reported they did have standards and 19 (59%) states said no, they did not have standards for their middle school agricultural education courses. If they did have standards for their courses, respondents were asked what standards they use. Respondents indicated they used state standards specific to their courses in their state. The 32 state FFA leaders were also asked to check what topics were covered in their agricultural science courses. The most frequent topics addressed were career exploration (f=28), agricultural literacy (f=26), animal science (f=25), horticulture (f=24) and history of the FFA (f=24). Three state FFA leaders did not respond to this item. Table 6 shows

all of topics listed and their frequencies.

Table 6

Topics Coved in Middle School Agricultural Education Courses (n=29)

Topics	*f*
Agricultural Literacy	26
Agricultural Mechanics	19
Animal Science	25
Horticulture	24
Employability Skills	13
Soil and Crop Science	18
Career Exploration	28
History of FFA	24
FFA Meeting Procedures	19
Parliamentary Procedures	11
Public Speaking	18
Agribusiness	15
Ecology Conservation	19
International Agriculture	7

Note: Respondents could check all that applied.

State Level CDEs

The third section of research objective two sought to establish information regarding middle school Career Development Events (CDEs). Out of the 32 states with middle school agricultural education programs, 22 states (69%) indicated they hold state level contests for middle school FFA members while 10 states (31%) reported they do not hold state level contests for middle school FFA members. These 22 states were then asked to report how they hold their CDE contests. The 22 respondents could check all

that apply from the following list: in conjunction with high school FFA events, separate from high school FFA events and other. Five states reported they hold middle school CDEs separate from high school CDEs events, while 21 states reported their middle school CDEs are held in conjunction with high school FFA events. Five states also indicated other and then specified. State FFA leaders who reported other indicated these events happen at their state convention, both conjunction and separate from high school events, and at the same time, but separate competition. Table 7 below shows frequencies.

Table 7

Organization of Middle School State Level CDEs (n=22)

CDE Organization	*f*
In conjunction with high school FFA events	21
Separate from high school FFA events	5
Other	5

Note: Respondents could check all that applied.

Additionally, the 22 state FFA leaders were asked what grades levels can participate in state level CDEs. Eight states reported 6th graders participate in CDEs, 19 states reported 7th graders participate in CDEs, and 22 states reported 8th graders participate in CDEs. The frequencies are reported in the table below.

Table 8

Grade Levels that Participate in State Level CDEs (n=22)

Grade Levels	*f*
6th	8
7th	19
8th	22

Note: Respondents could check all that applied.

Opportunities for Middle School FFA Members

The fourth and final section of research objective two sought to discover opportunities available for middle school agricultural education students. State FFA leaders were asked if their middle school students participated in SAE. Twenty- four states (75%) reported yes, students in middle school agricultural science courses do participate in SAE while, eight states (25%) reported they do not participate in SAE projects. Additionally, respondents were asked to check all other opportunities that were available for middle school FFA members. The opportunities selected most frequently were discovery degree (f=26), attend conventions (f=25), creed speaking (f=23), public speaking contests (f=20), record books (f=19) and state awards (f=19). Some other opportunities that were not listed, but were given by state FFA leaders were "middle school opening and closing ceremonies; essay contest", "leadership conferences presented by state officers tailored to 6th-8th graders" and "jr. high conduct of meeting contest, environmental skills contest, soils judging contest, dairy foods contest, floriculture contest, poultry judging, broiler contest". Four state FFA leaders did not

prove a response. See appendix C for the list of all text responses to this question.

Table 9

Opportunities for Middle School Agricultural Education Students (n=28)

Opportunities	*f*
Discovery Degree	26
FFA Officer Team	12
Attend Conventions	25
Proficiency Awards	8
National FFA Awards	12
State Awards	19
Public Speaking Contests	20
Creed Speaking	23
FFA Quiz	18
Record Books	19
Livestock Evaluation	16

Note: Respondents could check all that applied.

Objective 3: Identify Advantages and Disadvantages of Middle School Agricultural Education Programs

The purpose of research objective three was to identify advantages and disadvantages of middle school agricultural education programs as perceived by state FFA leaders. These statements were derived from the results of Rossetti's (1992) study The results for research objective three were analyzed and reported in four sections (Positives for Students, Disadvantages for Students, Benefits for the State, and Disadvantages to the State). The data are reported in tables 10, 11, 12 and 13, using means and standard deviations. The instrument ranged from a score of one (Strongly

Disagree) to four (Strongly Agree).

Positives for Students

The first section of research objective three sought to establish positive outcomes for students who enroll in middle school agricultural education programs. The 32 state FFA leaders with middle school agricultural education programs were asked to rank their level of agreement with five statements in Likert scale questions regarding positive outcomes for students. The table below shows mean scores and standard deviations for the five statements. State FFA leaders agreed that enrollment in middle school agricultural courses results in increased agricultural literacy (m=3.61), increased career awareness (m=3.35), increased leadership development (m=3.32), increased self-esteem (m=3.39) and participation in FFA activities (m=3.26).

Table 10

Positive Outcomes for Students who Enroll in Middle School Agricultural Education Programs(n=31)

Positive Outcome Statements for Students	*M*	*SD*
Increased agricultural literacy	3.61	.50
Increased self-esteem	3.39	.50
Increased career awareness	3.35	.49
Increased leadership development	3.32	.75
Participation in FFA activities	3.26	.82

Note: 1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree

State FFA leaders were asked to add any additional positives outcome for students who enrolled in agricultural education course that were not listed in the Likert scale question (Appendix D). Many state FFA leaders indicated students were more likely to participate in high school programs if they were in middle school programs. One state FFA leader even reported it helps "develop positive professional relationship with instructor (who in most cases will be the same instructor in high school)". Two state FFA leaders indicated a positive outcome was career development and can lead to career opportunities in agriculture. One state FFA leader reported a positive outcome for students who enroll in middle school agricultural education courses is "an interest in science through participation in Agriscience Fair".

Disadvantages for Students

The second section of research objective three sought to establish disadvantages for students enrolling in middle school agricultural education programs. State FFA leaders were asked to report disadvantages for students who enrolled in middle school agricultural education programs. Respondents were asked to rank their level of agreement for four statements regarding disadvantage for students who enroll in middle school agricultural education programs. State FFA leaders neither agreed or disagreed with all of these statements. The table below shows mean scores and standard deviations.

Table 11

Disadvantages for Students who Enroll in Middle School Agricultural Education Programs (n=31)

Disadvantage for Students Statements	*M*	*SD*
Teacher lacks preparation to teach middle school students	2.45	.85
Increased competition with other courses	2.35	.80
Potential of duplication courses with secondary agriculture courses	2.26	.89
Student burn out in agricultural education	2.19	.65

Note: 1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree

State FFA leaders were asked to report other disadvantages for students that were not listed in the question. Three state FFA leaders reported that time was an issue. Nine weeks courses limits their involvement with FFA and results in a disconnect with students and teachers. State FFA leaders also reported there is limited opportunities for middle school students. One state FFA leader reported middle school enrollment "lowers local 4-H membership". See appendix E for the rest of the text responses.

Benefits for the State

The third section of research objective three sought to establish benefits the state experiences due to having middle school agricultural education programs. Respondents were asked to indicate their level of agreement with advantages and disadvantages their state experiences due to having middle school agricultural education programs. The table below indicates mean scores and standard deviations for state FFA leaders' agreement regarding benefits the state experiences due to middle school agricultural education

programs. State FFA leaders agreed with all of these statements.

Table 12

Benefits the State Experiences due to Middle School Agricultural Education Programs (n=32)

Benefits for the State Statements	*M*	*SD*
Increased agricultural literacy in society	3.41	.56
Increased enrollment in agricultural education	3.34	.60
Increased FFA membership	3.25	.76
Increased student accomplishment at earlier grade levels	3.16	.68

Note: 1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree

Additionally, state FFA leaders reported more benefits the state experiences due to middle school agricultural education programs (Appendix F). Some benefits reported include allowing an agricultural educator to have a full teaching load at small school, help recruit students into a high school program, higher level of achievement in high school FFA, better scores on state tests, and increase in participation in the Agriscience Fair.

Disadvantages for the State

The fourth and final section of research objective three sought to establish disadvantages the state experiences due to middle school agricultural education programs. State leaders were asked to report their level of agreement of three statements regarding disadvantages their states' experiences due to having middle school agricultural education programs. The table below shows means and standard deviations

for the statements.

Table 13

Disadvantages the State Experience Due to Middle School Agricultural Education Programs (n=31)

Disadvantages to State Statements	*M*	*SD*
There are not any disadvantages	2.74	.77
Increased student to teacher ratio	2.34	.67
Reduce agricultural education participation is upper grades	1.93	.59

Note: 1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree

Other disadvantages state FFA leaders reported the state experiences include, finding teachers to teach these middle school programs with an already growing agricultural teacher shortage, working through the age differences of middle school and high school FFA members, and finding a way to offer more opportunities to these middle school students. See appendix G for a list of all text responses.

Objective 4: Explore the Relationship between Enrollment in Middle School Agricultural Education Programs and Enrollment in High School Programs

The purpose of this research objective was to explore the relationship between enrollment in middle school agricultural education programs and high school agricultural education enrollment. The 32 state FFA leaders were asked if they believed enrollment in middle school agricultural education courses helped increase enrollment in high school agriculture education courses. This question was asked as an open ended question. Twenty-four state FFA leaders (77%) replied yes, they do believe it increases

enrollment, 2 states (6%) replied no and 5 states (16%) indicated that it depends on several factors. State FFA leaders reported that it mainly depends upon the quality of teacher and the quality of the middle school agricultural education programs if the student chooses to enroll in high school programs. Majority of respondents indicated this is a huge component of middle school agricultural education programs. One state FFA leader replied "Yes. The middle school is helpful not only from a literacy standpoint, but from a standpoint of exposing students to careers they had not thought about before especially in the context of agriculture. Building a positive relationship with students at this level can feed the secondary level. While there are not as many opportunities at the junior high level, they often see what lies ahead for them at the high school level and provides some interest/motivation to continue on." To view the entire list of text responses to this question, please see appendix H.

CHAPTER V

SUMMARY, CONCLUSION, AND RECCOMENDATIONS

Introduction

Based on the results presented in Chapter IV, several conclusions, implications and recommendations can be made about middle school agricultural education programs in the United States. A summary of methodology is provided and the research objectives are further discussed and recommendations for further research are addressed.

Objectives

The research objectives of this study are as follows:

1. Describe basic information relating to middle school agricultural education (enrollment numbers, number of schools with middle school agricultural education, length of programs, number of middle schools with FFA, dues and funding).
2. Describe components of middle school agricultural education programs (topics taught, participation in FFA contests, opportunities for students and involvement with SAE).
3. Identify advantages and disadvantages of middle school agricultural education programs as perceived by state FFA leaders.
4. Explore the relationship between enrollment in middle school agricultural education programs and high school agricultural education enrollment as perceived by state FFA leaders.

Summary of Methodology

This study was descriptive with a cross-sectional design. Descriptive research is designed to explain the current state of a specific variable (Frankel & Wallen, 2009). According to Frankel and Wallen (2009), cross-sectional surveys collect information from a predetermined population. To address the research objectives, a survey was used as the means of data collection.

The population of interest for this study was middle school agricultural education programs across the United States. This survey was sent to all state FFA leaders in the United States and Puerto Rico (N=51). State FFA leaders contact information was obtained from each state's FFA website. The size of the population was 51 state FFA leaders. A total of 43 state FFA leaders completed the survey resulting in a response rate of 84%.

The instrument was developed to evaluate and examine baseline information over middle school agricultural education programs in the United States (Rossetti, 1992). Once the instrument was obtained from Rossetti, it was modified and reviewed by a panel of teacher educators. There were a total of 34 questions on this survey. There were 12 multiple choice/check all that apply questions, 16 fill in the blank questions, four Likert type questions and two questions regarding which state they represent. Respondents were asked to answer questions that addressed enrollment numbers, membership numbers, coursework, availability of contests, funding, advantages and disadvantages all related to middle school agricultural education in each state. A panel of teacher educators validated these questions.

This study used Dillman, Smyth and Christian (2009) tailored design method for data collection. This survey was created on Qualtrics™, an online survey system that allows researchers to create and distribute surveys, and collect data. For this study, the researcher used five points of contact. (Dillman, Smyth & Christain, 2009). The first contact was a pre-notice email. The survey link was sent out via Qualtrics ™ and follow up emails were sent out once a week for the next four weeks.

The data collected from this survey was analyzed using Statistical Package for Social Sciences (SPSS), Microsoft Excel and Qualtrics™. Sums were calculated for open-ended questions, percentages and frequencies were calculated for multiple choice questions and mean and standard deviations were calculated for each of the Likert type questions.

Summary of Findings

This study provides a broad examination of middle school agricultural education programs in the United States. Rossetti (1992) collected data in 1990 and conducted a similar study. The researcher has compared this study's results to Rossetti's (1992) results. Any changes that may have occurred in middle school agricultural education in the past 25 years will be discussed in the conclusions. Although these results are not generalizable to all middle school agricultural education programs in the country, this study provides an update on middle school agricultural education programs today.

Objective 1: Describe Basic Information Relating to Middle School Agricultural Education

Conclusions

Enrollment in Agricultural Education

The purpose of research objective one was to describe basic information relating to middle school agriculture education. The first section of objective one asked state FFA leaders to report the number of schools with middle school agricultural education programs and the number of students enrolled in those programs. In this study, a total of 32 states reported they had middle school agricultural education programs in their state. Rossetti (1992) reported only 30 states had middle school agricultural education programs. State FFA leaders indicated that there were a total of 107, 856 middle school students enrolled in these programs. Rossetti (1992) found that a total of 52, 968 students were enrolled in middle school growths. From this data, the researchers concluded that enrollment numbers in middle school agricultural education programs have more than doubled. The number of states that have middle school agricultural education programs has increased as well. This means middle school agricultural education programs are a growing population in the field of agricultural education. Due to this recent growth, further research should be conducted to accommodate the increase of middle school agricultural education programs.

It can be concluded that more students are getting involved in agricultural education at an earlier age. For agricultural education teachers, this could result in more enrollment in their programs and potentially a more successful and well-rounded

program. Students now have more years to be involved in agricultural education and this should result in more opportunities available and higher achievement in the agriculture field.

With this increase in enrollment of middle school students, more agricultural education teachers need to be hired. This is problematic due to the current shortage of agricultural education teachers (Camp, Broyles & Skelton, 2002). Agricultural teacher preparation programs should prepare teachers to teach middle school students because it is a possibility they will at some point in their career. This increase in growth of number of students should excite specifically high school agricultural education teachers. After being enrolled in a middle school agricultural program, students should come to high school knowing the basics of agriculture and FFA and should be able to accelerate through curriculum rather quickly. This could also result in students taking higher level agricultural education courses that students would not normally not be able to take in just four years of agricultural education.

There is a current trend in public education for more career and technical education courses. These findings should excite state boards of education. More middle school students are now involved in middle school agricultural education. Additionally, these programs should address the issue of today's students being further removed from production agriculture experience (Fritz & Moody, 1997). Based on these study's findings, more middle school students are taking middle school agricultural education courses, thus creating a more agriculture literate society.

FFA Membership

State FFA leaders were asked to report the number of middle school students who were FFA members. 27 (84%) states reported having official FFA membership available for middle school students, while Rossetti (1992) reported only 19 states have FFA members at the middle school level. Additionally, Rossetti (1992) reported there were a total of 17,722 middle school FFA members, while this study found there was a total of 29, 395 middle school FFA members. The researchers concluded middle school FFA has seen an increase in membership in the past 25 years. However, it is clear that increase of membership is not near as large for FFA membership.

The question is, why are more and more students enrolling middle school agricultural education courses, but not joining FFA? This could be due to the lack of chapters and/or states not allowing middle school FFA members. Based on these findings, only 27% of students enrolled in middle school agricultural education courses were official FFA members. The researcher believes this is a problem that needs to be addressed. Many middle school agricultural education students are missing out on opportunities due to not being involved in FFA. This is problematic for agricultural education teachers because FFA is the intracurricular piece of the three components of agricultural education (Talbert, Vaughn, Croom & Lee, 2007). How can middle school agricultural education teachers provide the absolute best program for their students without being involved in FFA? According to these findings, state FFA staff leaders should make sure programs are encouraging FFA membership for middle school students in order to increase membership numbers. These findings warrant additional

inquiry.

Typical Length of Program

The third section of research objective one sought to determine the typical length of middle school agricultural education programs. For this study, state FFA leaders were asked to check all that apply from the list of: 6 weeks, 9 weeks, one semester and one full school year. Due to local school differences, these lengths of programs can vary greatly so it is important to determine which lengths are most popular and best fit middle school students. For this study, state FFA leaders indicated their typical length was one semester, or 9 weeks.

It can be concluded that lengths of programs vary greatly across the United States. The majority of respondents reported their middle school agricultural education programs were one semester. Since the majority of respondents teach courses for one semester, states' department of education should develop middle school agricultural curriculum specifically for that length. Additionally, middle school agricultural education teachers should consider these length of programs and adapt their classroom procedures accordingly. Lastly, agricultural teacher education preparation programs should prepare their teachers to teach courses of various lengths. Based on these findings, courses will not always be the typical one year and teachers should be equipped to prepare lessons and syllabi for any course length. Now the question is, what length of program best fits middle school students' needs? This question requires further research.

Dues and Funding

The fourth section of research objective one sought to determine how middle school agricultural education programs are funded. State FFA leaders were asked if they require FFA dues for middle school FFA members. 25 states (78%) reported yes, they collect dues from middle school students and 7 states (22%) said no, they do not. Rossetti (1992) reported that 27 states required FFA dues from middle school students. In 1992, the range of dues went from $0.50 to $ 8.00 (Rossetti, 1992). Today, the amount of dues ranged from $5.00 to $17.00. It can be concluded that dues have increased for middle school FFA members in the past 25 years.

Additionally, state FFA leaders were asked how their middle school agricultural education programs were funded. Respondents could check all that applied from the following list: federal funds, state funds, local funds, and other. Eight states reported they use federal funds, 19 states reported they used state funds, 28 states reported they used local funds and four states reported other. Rossetti (1992) reported seven states used federal funds, 14 states used state funds and 31 states reported they used local funds. It can be concluded that funds for middle school programs are often a mixture of multiple types of funds, but have continued to be mainly funded at the local level.

More funding is necessary in order to increase the number of middle school agricultural education. Based on these findings, local school administrators can see that most of middle school agricultural education programs are funded locally. Without these local funds, most of these programs would not be able to survive. These administrators should continue to make sure these fund are available each year in order continue their

middle school agricultural education program. In order to grow their program, middle school agricultural education teachers should begin to seek funds from other sources rather than just relying on local funding. States' department of education should consider proposing legislation approving funding for middle school agricultural education programs to implement more middle school agricultural education programs.

Recommendations

This study shows enrollment in middle school agricultural education grew from 52,968 to 107,856 in the past 25 years. Due to this being such a baseline study, the researcher cannot conclude why there has been such a dramatic growth in enrollment. Further research needs to be conducted in order to determine why there has been such growth in middle school agricultural education enrollment numbers. It can be concluded that middle school agricultural education programs have grown and deserve to be recognized as a separate entity. Based on this growth of middle school students, agricultural teacher preparation programs should be preparing teachers to teach middle school students as well as high school students. Departments of education also may consider implementing a reporting system to better keep track of this growing population of middle school agricultural education students. Additionally, National FFA should take note of this increase in middle school agricultural education students and consider implementing more middle school FFA involvement at the national level.

Enrollment numbers have increased much more than middle school FFA members and only a percentage of students are FFA members (27%). It is recommended that more opportunities be available for middle school FFA members and more states

allow middle schools students to become FFA members to fulfill their greatest potential in this organization. Based on these findings, middle school teachers should encourage students to join FFA to be available for all opportunities and learn what FFA has to offer. Further research should be conducted to determine how to increase middle school FFA membership.

The length of programs vary greatly. The researcher recommends more research be conducted to determine the optimal length of middle school programs that are more efficient and appropriate for middle school students. Program lengths are determined by local districts, so it would be more appropriate to survey middle school agriculture education teachers to get more accurate data.

Dues have seen an extreme increase in the past 25 years. It can be concluded, that much like everything else, prices are increasing. The researcher recommends the National FFA office and each state FFA office address middle school dues and set a price that goes to the state and the national level to be more consistent across the board. Additionally, local school districts should help pay middle school FFA dues, to increase middle school FFA membership.

Objective 2: Describe Components of Middle School Agricultural Education Programs

Conclusions

Organization of FFA Chapters

The purpose of research objective two was to describe components of middle school agricultural education programs. The first section of research objective two

sought to identify how middle school FFA chapters were organized. Nine states (28%) indicated their middle school chapters are organized separately from the high school chapter, 10 states (31%) indicated their chapters are joint between the middle school and the high school, while 13 (41%) states indicated other. Rossetti (1992) reported twelve states organized their middle school chapters separately from their high school chapters and 24 states indicated their chapters were joint between middle school and high school. Based on these findings, it can be concluded that not much has changed in the past twenty-five years regarding the organization of middle school FFA chapters. The way they are organized varies from state-to state.

Based on these findings, 31% of states have joint chapters between their middle school and high school. This means the middle school program could result in feeder program for the high school. For agricultural education teachers, it is important the middle school teacher and high school teacher have a good working relationship for the best success of the program. Middle school students will attend meetings alongside high school students and its important there is a sense of community in the chapter, even though they are in two separate schools.

Additionally, 28% of states reported having separate chapters for their middle school and high school. The question is, why? Why are their chapters separate and does this make it a more difficult transition from middle school agricultural education to high school education? Which organization of chapters works best for students and teachers? These questions warrant additional inquiry.

Curriculum

The second section of research objective two sought to identify what topics were covered in middle school agricultural education courses. State FFA leaders were asked to report if their state had standards for their middle school agricultural education courses. 13 states (41%) reported they did have standards for their courses, while 19 states (59%) said they did not have standards for their courses. Rossetti (1992) reported 14 states had standards for their courses, 18 states did not and 20 states did not answer the question. It can be concluded that 25 years later, the majority of states still do not have standards for their middle school agricultural education courses.

State FFA leaders were also asked to indicate what topics were addressed in their middle school agricultural education courses. The most frequent topics addressed were career exploration, agricultural literacy, animal science, horticulture and history of the FFA. Rossetti (1992) reported the most frequent topics addressed were plant science, career exploration, agricultural literacy, animal science, conservation and mathematics. It can be concluded that career exploration, agriculture literacy, animal science and horticulture are still the foundation of these courses. Additionally, the researcher concluded that the history of FFA is now addressed more in middle school agricultural education courses than it was twenty-five years ago.

Based on these findings the researcher concluded these programs are addressing the issue of today's students being further removed from production agriculture (Fritz & Moody, 1997). Agricultural literacy is addressed by 90% of these programs. Additionally, 97% of these program explore career paths. According to Anderman and

Maehr (1994), middle grades are the time for heightened awareness for career possibilities. These findings should excite local school administrators. Middle school agricultural education programs are addressing issues in today's society and also assisting students in possible career exploration, which is appropriate for this stage of development (Anderman and Maehr, 1994). These findings suggest middle school agricultural education teachers should be prepared to teach a variety of topics, while also mainly focusing on career exploration, agricultural literacy, animal science, horticulture and history of FFA. Agricultural teacher education preparation programs should make sure teachers are proficient in these topics. Based on these findings, states' department of education desperately need to write standards for these middle school agricultural education courses. Fifty- nine percent of states reported they did not have standards for their middle school agricultural education courses. In order for these programs to grow and be taken seriously, states need to develop a curriculum to assist these middle school agricultural education teachers.

State Level CDEs

The third section of research objective two sought to establish information regarding middle school Career Development Events (CDEs). 22 states (69%) indicated they hold state level contests for middle school FFA members, while 10 states (31%) reported they do not hold state level contests for middle school FFA members. Rossetti (1992) reported 17 states provide state level contests for their middle school members while 15 states reported they do not hold state level contests for their middle school and 20 states did not respond. The researcher concluded that more states are providing state

level CDE contests for these middle school FFA members. The 22 states that offer state level contests for middle school members were asked to indicate how their contests were held. Five states (23%) reported they hold their middle school CDEs separate from high school CDEs, while 21 states (95%) reported their middle school CDEs are held in conjunction with high school CDE contests. Rossetti (1992) reported 14 states indicated their contests were held in conjunction with high school contests, while six states indicated their contests were held separate from their high school FFA contests. It can be concluded that the majority of states still hold their middle school state CDEs in conjunction with high school CDE contests.

Additionally, state FFA leaders were asked what grades are allowed to participate in these state CDE contests. 8 states reported 6th graders participate in CDEs, 19 states reported 7th grades participate in CDEs and 22 states reported that 8th grades participate in CDE contests. Rossetti (1992) reported that four states allowed 6th graders to participate in CDEs, while 14 states allowed 7th graders to participate in CDEs and 17 states allowed 8th graders to participate in CDEs. It can be concluded that most participation at the middle school level in CDEs is still by 8th graders, but 6th and 7th grade participation has increased over the past twenty-five years.

Based on these findings, it can be concluded that agricultural education teachers should be prepared for middle school students to participate in CDE contests. Middle school agricultural education teachers should continue to encourage middle school students to compete in state level CDEs, especially grades 6th-7th. These results should excite these teachers. If middle school students are allowed to participate in state level

CDE contests, that only gives them more time to train in a contest and improve. These contests allow students to start training in contests at a younger age and will likely result in a higher level of achievement in high school CDE contests. A higher level of achievement may provide students with greater scholarship opportunities. Additionally, due to these contests FFA Chapters could experience more success. For state FFA leaders, these findings mean they should be prepared to hold middle school state level CDE contests with their high school CDEs. Lastly, middle school administrators should be made aware of the benefits for students who participate in CDE contests. Administrators might not want to allow middle school students to miss school, so it is important they are aware of the benefits of these contests.

Opportunities for Middle School FFA Members

The fourth section of research objective two sought to discover opportunities that are available for middle school FFA members. The 32 state FFA leaders with middle school agricultural education programs were asked if their middle school students participate in SAE. 24 states (75%) reported yes, students do participate in SAE, while 8 states (25%) reported their students do not participate in SAE. State FFA leaders were given a list of opportunities for middle school agricultural education students and were asked to indicate which ones were available in their state.

The opportunities most frequently were discovery degree, attend conventions, creed speaking, public speaking contests, record books and state awards. Additional responses were given by state FFA leaders as well (Appendix D).

It can be concluded there are a wide variety of opportunities available for middle

school students. Based on these findings, the majority of middle school students participate in SAE. This is great for students because this allows for potentially more investment and a longer and more extensive SAE record book, which could lead to awards and scholarships. Due to this large SAE participation, state FFA leaders should consider running proficiency awards for middle school FFA members. For the researcher, the question arises, what type of SAE are these middle school students completing? This question warrants further research.

According to these findings, middle school agricultural education teachers should be prepared to run discovery degree applications and train middle school students for public speaking events. The researcher suggests National FFA create a national level contests for these students to encourage involvement above the state level. According to Hillison (1994) it is important to note that middle school agricultural education programs are not supposed to be mini-high school programs and it is apparent that many of the opportunities made available are activities that are also available to high school students. Based on these findings, state FFA staff and middle school agricultural education teachers should create some opportunities specific to middle school FFA members.

Recommendations

Based on the results of research objective two, it is clear that the components of middle school agricultural education programs have not changed much in the past twenty-five years. Many states still do not have standards for their middle school agricultural education courses. For state department of educations, it is recommended that standards be created in order to have some accountability and structure for their

middle school agricultural education courses. For middle school agricultural education teachers, it is recommended the focus of these courses remain on agricultural literacy, and career exploration, but also include curriculum relating to the National FFA Organization.

The researcher recommends more research be conducted specifically related to middle school level CDE events. It is important to understand how these contests are administered and how they differ from high school level CDEs. The researcher also recommends a separate study be conducted for those states who do not allow middle school students to participate in state level CDEs to understand the deterrents of middle school CDE events. Based on the findings of this study, 6th and 7th grade participation in CDE events are increasing. Middle school agricultural education teachers should promote CDE events to the lower grade levels to continue this trend and increase participation at an earlier age. State FFA offices should continue to offer middle school level CDEs and create more CDEs specific for middle school students to increase participation and achievement.

Based on the findings of this study, opportunities available for middle school agricultural education students vary state-to-state. Additionally, many opportunities that are available are not specific to middle school students. It is recommended that state FFA offices develop opportunities that are specifically for middle school agricultural education students in order to increase involvement. According to Piaget (1950), middle school students are at distinct stage of cognitive development. It is recommended that middle school agricultural education teachers tailor their classroom to meet the

needs of middle school students and offer programs directly for middle school students (Hadsock, 2009).

Objective 3: Identify Advantages and Disadvantages of Middle School Agricultural Education Programs

Conclusions

Positives for Students

The purpose of research objective three was to identify advantages and disadvantages of middle school agricultural education programs as perceived by state FFA leaders. The first section of research objective three sought to establish positive outcomes for students who enroll in middle school agricultural education programs. Respondents were asked to rank their level of agreement with statements in a Likert scale question. Respondents agreed that some positive outcomes for students are increased agricultural literacy (m=3.61), increased career awareness (m=3.35), increased self-esteem (m=3.39), increased leadership development (m=3.32), and participation in FFA activities (m=3.26).

Rossetti (1992) reported 12 states indicated a major positive outcome for students was improved agricultural literacy. It is clear that still rings true in today's programs. In addition, Rossetti (1992) reported six state FFA leaders felt that career awareness was a benefit. Based on the findings, this continues in today's programs. Today's state FFA leaders also reported that middle school programs allow students to build a relationship with the agricultural education teacher, increase high school enrollment and sparks an interest in science through agriscience fair.

This study shows there continues to be many positive outcomes for students who enroll in middle school programs, however, agricultural literacy, building self-esteem and career awareness are the most popular. Frick (1993) reported agricultural literacy as one of the most popular goals of middle school programs. From this study, it is clear agricultural literacy is still the main focus of middle school agricultural education programs. Based on these findings, middle school agricultural education teachers should focus on these positive outcomes and make sure students leave their program more agricultural literate and with a higher sense of self-worth. These findings should please state FFA staff and state's department of education. It is clear these middle school agricultural education programs result in many positive outcomes for their students. Based on these findings, states that do not have middle school agricultural education programs should observe these positive outcomes and consider adding programs in their state. Middle school agricultural science teachers are the starting point for agricultural education. These teachers are sparking students' interest in agricultural science and are inspiring them to continue taking agricultural education courses. Middle school agricultural education teachers should continue to form good working relationships with high school agricultural education teachers to ensure students have a seamless transition to the high school program.

Disadvantages for Students

The second section of research objective three sought to establish disadvantages for students enrolling in middle school agricultural education programs. Respondents were asked to rank their level of agreement of four statements regarding disadvantages

for students who enroll in middle school agricultural education programs. State FFA leaders ranked the following statements: teachers lack preparation to teach middle school students (m=2.45), increased competition with other courses (m=2.35), potential of duplicating courses with secondary agriculture courses (m=2.26) and students burn out in agricultural education (m=2.19).

Rossetti (1992) reported disadvantages as follows: teachers are not prepared to teach middle school students, duplication of course work in high school, competition with other courses and student burn-out. Today's state FFA leaders reported some additional disadvantages. Three state FFA leaders reported that time with middle school students is an issue. There is not enough time in these courses to increase involvement with FFA. State FFA leaders also reported there is limited opportunities for middle school agricultural education students and involvement may lower local 4-H membership. The researcher concluded that over the past 25 years some disadvantages for students enrolling in middle school agricultural education programs have been fixed, while other problems have come up.

Based on these findings, state FFA offices should address the length of programs and see if it limits student participation and involvement. Additionally, local school administration should also consider their length of program and see if that is a hindrance to their middle school agricultural education programs. State FFA leaders reported the highest mean score for the statement "teachers lack preparation to teach middle school students." (m= 2.45). According to Rayfield and Croom, (2010), middle schools are a completely different entity and are much different from elementary schools and high

schools. Due to the different disposition of these students, agricultural teacher preparation programs should start preparing teachers to teach middle school students as well. State FFA leaders reported the limited amount of opportunities available for middle school students as a disadvantage. National FFA and State FFA should consider adding more opportunities for middle school students.

Benefits for the State

The third section of objective three sought to establish benefits the state experiences due to having middle school agricultural education programs. Respondents were asked to rank their level of agreement with four statements regarding benefits their state experiences dues to having middle school agricultural education programs. State FFA leaders agreed the state has increased agricultural literacy in society (m=3.41), increased enrollment in agricultural education (m=3.34), increased FFA membership (m=3.25), and increased student accomplishment at earlier grade levels (m=3.16).

Rossetti (1992) indicated eight state FFA leaders reported increased enrollment was a benefit and five state FFA leaders reported a better educated population. Based on these findings, today's state FFA leaders still feel the state has a more agriculture literate society due to these middle school agricultural education programs. Today's state FFA leaders also indicated that middle school agricultural education programs allow a teacher to have a full teaching load at a small school, help recruit students into a high school program, higher level of achievement in high school FFA, better scores on state tests and increase participation in agriscience fair.

According to Gibbs (2005), agricultural literacy is a huge issue our society faces

today. Based on these findings, the current issue of agricultural literacy in our society should be improved by these middle school agricultural education programs. Rayfield and Croom (2007) reported middle school programs could help increase enrollment numbers. Based on these findings, it is clear state FFA leaders feel middle school programs help increase enrollment. For states' department of education, these findings display the impact middle school programs could have on their state's enrollment numbers. Small school local administration should consider adding middle school programs, in order to ensure a full teaching load for the agricultural education teacher. Lastly, states' department of educations should take these benefits into consideration and consider adding more middle school programs. Additionally, states that do not have middle school agricultural education programs should consider adding middle school agricultural education programs due to the many benefits.

Disadvantages for the State

The fourth and final section of research objective three sought to establish disadvantages the state experiences due to middle school agricultural education programs. State FFA leaders were asked to rank their level of agreement of three statements regarding disadvantages for state who have middle school agricultural education programs. Today's state FFA leaders ranked the following statements: there are not any disadvantages (m=2.74), increases student to teacher ratio (m=2.34) and reduces agricultural education participation in upper grades (m=1.93).

Rossetti (1992) reported 11 state FFA leaders felt there were not any disadvantages, and others felt that programs could not retain students in upper grades

and increased student to teacher ratio. Today's state FFA leaders reported other disadvantages states experience due to middle school agricultural programs. These include: finding teachers to teach these middle school programs with an already increasing agricultural teacher shortage, working through the age differences of middle school and high school students and finding a way to offer more opportunities for these students.

From these results, it is clear state FFA leaders disagree that enrollment in middle school agricultural education program reduces enrollment in the upper grades. Due to this, middle school and high school agricultural education teachers should continue to use these programs as a feeder programs and recruit students for the high school agricultural education programs. Based on these findings, agricultural teacher preparation programs should continue to encourage students to entire the profession of agriculture education and consider the middle school level. Additionally, teacher preparation programs should prepare teachers to teach middle school age children as well as high school children. State FFA offices need to find a way to offer more opportunities for middle school agricultural education students to increase involvement of these programs. The question arises, what other opportunities should be available for these middle school students? Should these opportunities include public speaking, obtaining leadership skills or more career exploration? These questions warrant further inquiry.

Recommendations

Based on these findings, there are many advantages and disadvantages of middle school agricultural education programs. The researcher recommends curriculum be developed that helps increase agricultural literacy, career awareness, leadership development, and self-esteem of middle school students to continue these positive outcomes. More leadership opportunities should be made available for middle school students in order to increase leadership skills. The researcher also recommends middle school FFA members should be introduced into agriscience fair since state FFA leaders reported it as a positive outcome.

The researcher recommends further research be conducted regarding length of programs. Multiple state FFA leaders indicated time was a barrier to increasing involvement in FFA chapters. Based on these findings, there are limited opportunities for middle school agricultural education students. It is recommended that the state FFA office develop more programs for middle school students.

Based on the findings regarding benefits the state experiences due to having middle school agricultural education programs, more middle school programs should be implemented across the country. State FFA leaders agreed they increased agricultural literacy in society while also increasing enrollment in agricultural education. The researcher recommends states without middle school agricultural education programs should take these benefits into consideration and discuss the implementation of middle school agricultural education programs.

Additionally, the researcher recommends agricultural education teacher

preparation programs prepare teachers to teach middle school students as well as middle school students. State FFA leaders have reported that working through age differences are a struggle for their state's teachers. Yet again it has become more apparent there is a need for more opportunities for middle school students. The researcher recommends state FFA staff meet and develop more programs for middle school FFA students.

Objective 4: Explore the Relationship between Enrollment in Middle School Agricultural Education Programs and High School Programs

Conclusions

The purpose of this research objective was to explore the relationship between enrollment in middle school agricultural education programs and high school agricultural education enrollment. State FFA leaders were asked if they believed enrollment in middle school agricultural education courses helped increase enrollment in high school agriculture education courses. 24 state FFA leaders (77%) replied yes, they do believe it increases enrollment, 2 states (6%) replied no and 5 states (16%) indicated that it depends on several factors. State FFA leaders reported it mainly depends upon the quality of teacher and the quality of the middle school agricultural education programs. Majority of respondents indicated this is a huge component of middle school agricultural education programs.

Based on these findings, agricultural science teachers and local administration should make sure there is a high quality teacher teaching at the middle school level in order to increase enrollment in middle school agricultural education programs. Additionally, state FFA offices should implement more middle school programs to

increase high school agricultural education enrollment. If students have two to three extra years enrolled in an agricultural education program, their level of achievement is likely to increase. This high level of achievement by the students could lead to more success for the FFA chapter as a whole. Finally, these middle school programs can and should be used as a recruitment tool for high school agricultural education programs.

Recommendations

Based on these findings, the researcher recommends that more middle school programs should be implemented across the country. State FFA leaders reported that middle school programs positively influence enrollment in high school agricultural education programs. Local school districts should take these results into consideration and implement more middle school agricultural education programs. High school agricultural education teachers should form close bonds with middle school agricultural teachers in order to ensure students will have a seamless transition from one school's programs to another.

Recommendations for Further Research

The results of this study provide researchers with several opportunities for further research within the field of middle school agricultural education. This study should be replicated in each state with middle school agricultural education programs in order to gain more valuable data. Middle school programs are handled at the state and local level so research studies within the state could result in more rich data. Further research should be conducted regarding the growth of enrollment to understand why there has been such a rapid increase of enrollment in middle school agricultural education

programs. Further research should also address why middle school FFA membership numbers have not grown as dramatically as enrollment numbers.

Due to the increase in the number of students, a need's assessment should be conducted surveying middle school agricultural education teachers and students. Possible further research could include a descriptive study surveying outstanding middle school chapters named by National FFA. Further research should address the length of middle school programs and determine what length is most appropriate for middle school students. Only 13% (n=41) states reported they have standards for middle school agricultural education courses. Researchers could help develop a set of nationwide standards for middle school agricultural education courses. Further research could be conducted regarding agricultural education teacher preparation programs and if they prepare teachers to teach middle school students.

Researchers could conduct a study and see the effects of middle school agricultural education programs. Do these programs really increase student's agricultural literacy and career awareness? Further research could be conducted regarding SAE projects. What SAE are these middle school students completing? How do these SAE projects affect their SAE projects in high school? More research should be conducted regarding the state level CDEs for middle school students. Based on this study's findings, more 6th and 7th graders are participating in CDE contests. It is necessary to research what CDEs these might include and how they might differ from high school CDEs.

Additionally, researchers should do a longitudinal study to determine what

influence middle school enrollment has on enrollment in high school agricultural education programs. It is recommended this study be replicated in future generations to continue to measure the growth and change of middle school agricultural education programs.

Recommendations for Practice

If each state would develop standards and curriculum for middle school agricultural education programs could help assist middle school agricultural education teachers. This curriculum would also be beneficial for the states' department of education so their teachers have accountability for their students and themselves. The researcher also recommends agricultural education teacher preparation programs prepare teachers to teach middle school age children as well as teaching courses of various lengths.

Additionally, it is recommended each state's FFA and national FFA create more contests and opportunities for middle school student to participate. In this study, it was apparent that more opportunities were necessary in order to continue to increase enrollment and involvement of middle school members. The researcher recommends a national CDE be developed specifically for middle school students. This middle school CDE should be an introductory to high school CDE. For example, National FFA should have an opening ceremonies CDE for middle school members, which will teach students the skills of public speaking and lead into an intro of parliamentary procedure. It is important to have a natural progression of these cognitive skills through CDEs, due to the developmental stage of these students. Lastly, with the large number of middle

school students participating in SAE, the researcher recommends proficiency awards be available exclusively for middle school students.

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APPENDIX A

INSTRUMENT

You are invited to take part in a research study being conducted by Dr. John Rayfield, Associate Professor and Shelby Adair, Graduate Student from the Department of Agricultural Leadership, Education, and Communication at Texas A&M University. The purpose of this study is to determine important baseline information over middle school agricultural education in the United States. This study seeks to gain valuable data to help examine and improve middle school agricultural education throughout the nation. You have been chosen to participate due to your involvement with agricultural education and your expertise in the field. You are the only way we can obtain this data to help improve middle school agricultural education. We appreciate your time in helping us with this research project. If you have any concerns or complaints about this research, please contact Dr. John Rayfield at 979-862-3707 or jrayfield@tamu.edu or Shelby Adair at shelby.adair@ag.tamu.edu

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_____1. Do you agree to participate in this study? (mark an "X" in the blank with your response.

___Yes

___No

If No Is Selected, Then Skip to the End of Survey

Many states define middle school and junior high at different grade levels. For this study, we will be collecting data on middle school and junior high programs which will only include grades 6th, 7th and 8th. Please keep this in mind as you continue through this survey.

2. Does your state have ANY middle school/junior high (grades 6-8) agricultural education programs? (mark an "X")

____Yes

____No

If No Is Selected, Then Skip to the End of Survey

3. Please record the number of schools in your state that offer middle school/ junior high (grades 6th-8th) agricultural education at specific grade levels as of the 2013-2014 school year below. If your state does not have any schools that offer middle school/ junior high agricultural education at a specific grade level, please place N/A in the blank.

6th grade: _____
7th grade:_____
8th grade:_____

4. Without duplication of the same program, how many total middle school/junior highs schools (grades 6th-8th) in your state offer agricultural education to their students?

_____

5. How many agricultural science teachers in your state teach exclusively middle school/junior high (grades 6th-8th)?

_____

6. Please record the number of students enrolled in middle school/ junior high agricultural education in your state as of 2013-2014 school year below.

6th grade: _____
7th grade: _____
8th grade: _____

7. Please record the typical length of middle school/junior high agricultural education courses. ("X" all that apply)

____6 weeks
____9 weeks
____One semester
____One full school year
____Other: please specify in text box below _____

8. Please record the number of schools that have official FFA membership for middle school/ junior high students.

_____

9. Please record the number of middle school students that are official FFA Members as of 2013-2014 in your state.

6th grade: _____
7th grade: _____
8th grade: _____

Please answer the following questions related to middle school/junior high agricultural educational curriculum.

10. Does your state have a core curriculum or standard specific to middle school/junior high agricultural education programs?

____Yes
____No

11. If yes to question 10, what curriculum/ standards does your state use for middle school agricultural education programs?

_____

12. Please select any of the following topics that are covered in your states' middle school agricultural education courses. ("X" all that apply)

____Agricultural Literacy
____Agricultural Mechanics
____Animal Science
____Horticulture
____Employability Skills
____Soil and Crop Science
____Career Exploration
____History of FFA
____FFA Meeting procedures
____Parliamentary Procedures
____Public Speaking
____Agribusiness
____Ecology and Conservation
____International Agriculture

13. Please include any other topics addressed in your state's middle school agricultural education courses.

_____

Please answer the following questions related to FFA activities.

14. Does your state provide state level Career Development Events (CDEs) for middle school/ junior high FFA members?
____Yes
____No

If yes to question 14, please answer the following questions 15 &16.

15. How are CDEs held for middle school/junior high FFA members? ("X" all that apply)
____In conjunction with high school FFA events
____Separate from high school FFA events
____Other: Please specify below _____

16. What grade levels are included in state level CDEs for middle school/junior high FFA members? ("X' all that apply)
____6th
____7th
____8th

17. In your state, do middle school/junior high students enrolled in agricultural education courses participate in a Supervised Agricultural Experience (SAE)?
____Yes
____No

18. Please select all opportunities that are available for middle school/junior high FFA Members. (“X” all that apply)
____Discovery Degree
____FFA Officer Team
____Attend Conventions
____Proficiency Awards
____National FFA Awards
____State Awards
____Public Speaking Contests
____Creed Speaking
____FFA Quiz
____Record Books
____Livestock Evaluation

19. What other opportunities are available for middle school/junior high FFA Members? Please explain in the text box below.

_____

20. How do school districts organize their middle school/junior high FFA chapters? (“X” one)
_____Separate chapters from high school FFA
_____Joint chapters with high school FFA
_____Other: Please specify below _____

Please answer the following questions related to funding of middle school agricultural education programs.

21. Are FFA dues collected from middle school/junior high members?
___Yes
___No

If yes, How much are dues per each middle school/junior high FFA member?

_____

22. Please select the types of funding are used to finance middle school/junior high agricultural education programs (“X” all that apply)
____Federal funds
____State funds
_____Local funds
_____Other: Please specify below _____

Please answer the following questions related to your perception of middle school/junior high agricultural education.

23. How would you define middle school agricultural education?

_____

24. Please rank your level of agreement with the following statements regarding positive outcomes for students who enroll in your state's middle school/junior high agricultural education programs.

Please mark an X with your answer.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Increased agricultural literacy				
Increased career awareness				
Participation in FFA activities				
Increased leadership development				
Increased self-esteem				

25. What are other positive outcomes for students who enroll in your state's middle school/junior high agricultural education programs? (What would you add to the above list?)

_____

26. Please rank your level of agreement with the following statements regarding disadvantages for students who enroll in your state’s middle school/junior high agricultural education programs.

Please mark an X with your answer.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Student burn out in agricultural education				
Teacher lacks preparation to teach middle school students				
Potential of duplicating courses with secondary agriculture courses				
Increased competition with other courses				

27. What are some other disadvantages for students who enroll in your state's middle school/junior high agricultural education programs that are not listed below? (What would you add to the above list?)

_____

28. Please rank your level of agreement with the following statements regarding benefits your state experiences due to having middle school/junior high agricultural education programs.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Increased enrollment in agricultural education				
Increased agricultural literacy in society				
Increased FFA membership				
Increased student accomplishment at earlier grade levels				

29. What are other benefits your state experiences due to having middle school/junior high agricultural education programs?

---

30. Please rank your level of agreement with the following statements regarding disadvantages your state experiences due to the having middle school/junior high agricultural education programs.

	Strongly Disagree	Disagree	Agree	Strongly Agree
There are not any disadvantages				
Reduce agricultural education participation in upper grades				
Increased student to teacher ratio				

31. What are some other disadvantages your state experiences due to having middle school/junior high agricultural education programs?

_____

32. In your opinion, does enrollment in middle school/ junior high agricultural education courses help increase enrollment in high school agriculture education courses? Please explain.

_____

APPENDIX B

TEXT RESPONSES TO ORGANIZATION OF FFA CHAPTERS

How do school districts organize their middle school/junior high FFA chapters?

- There are currently no Middle School Chapters
- No chapters
- We have both joint and separate chapters
- If the middle school located on a different campus, than the chapter must be a separate chapter from the high school
- Both options usually base on school size
- Most MS programs have their own chapters. There are a small handful (8-10) where the MS and HS are on the same campus and the school employs only 1 ag teacher. In those cases, the MS and HS are one combined chapter.
- not organized
- some separate/some joint depending on school size and teacher availability
- Chartered our first Middle School Chapter 2015
- To date, they aren't organized chapters.
- Both joint and separate chapters
- We have 1 chapter specific to middle school and the others are included with the high school chapters
- Two schools separate, other combined

APPENDIX C

TEXT RESPONSES TO STATE LEVEL CDES

How are CDEs held for middle school/ junior high FFA members?

- At State FFA Convention
- Creed, Agriscience Fair, and FFA Ceremonies (Novice PP) are for grades 7-9 only
- We have events that occur at state events and exist either as a contest with a middle school DIVISION or that are an entirely separate competition for middle schoolers. There are no events for just CDEs, they all occur at larger events that welcome all students.
- At the same time, but separate competition
- Both in conjunction and separate from high school events

APPENDIX D

TEXT RESPONSES FOR OPPORTUNITIES FOR MIDDLE SCHOOL STUDENTS

What other opportunities are available for middle school/junior high FFA members?

- A large draw for our middle school students is our FFA summer camp and the 212 leadership conference. They get a lot out of chapter visits and are often highlighted at our State FFA Convention. Middle school is a builder program for many high school chapters. Both the student and the program benefit from the fact that there are opportunities for middle school members to be involved in whatever way they can. Regarding the earlier questions - it's hard to make blanket statements about middle school programs on the state level. On the state level there are high school members who may not have an active SAE. Some middle schoolers have them, some do not. We allow students to count hours and experiences back to when they start paying National FFA dues so while they cannot win a proficiency in the 8th grade, their 8th grade hours DO count.

- All middle school FFA members can participate in all CDEs at the state level but we do not have separate middle school CDEs.

- Attending leadership workshops

- Camp

- Dairy Evaluation CDE, Environmental/Natural Resources CDE, Floral Design CDE, Floriculture CDE, Forestry CDE, Horse Evaluation CDE, Land Evaluation CDE, Lawnmower Operations CDE, Meats Evaluation CDE, N/L CDE, Parliamentary Procedure CDE, Poultry Evaluation CDE, Wildlife Management CDE; Middle School Day at the Fair.

- Floral Design competitions, horticultural exposition and all CDEs

- Jr. High Conduct of Meetings Contest, Environmental Skills Contest, Soils Judging Contest, Crops Judging, Dairy Foods Contest, Floriculture Contest, Poultry Judging, Broiler Contest

- Leadership Conferences presented by the State Officers tailored to 6-8th graders.

- Middle Grades Divisions to Livestock, Dairy and Horse Evaluation CDEs. Separate CDE's only for middle grades students in prepared public speaking, parli Pro, Quiz bowl and exploring biotechnology. Students may participate in

Creed one time. If they compete once, they may not compete again regardless of placing.

- Middle School Agriculture students are not currently allowed to belong to the FFA. However, a statewide taskforce has been formed to investigate the feasibility of allowing middle school agriculture students to participate in the FFA. If the recommendations from this taskforce are favorable, then this recommendation would be introduced as a proposed amendment at the 2016 State FFA Convention for the Delegates to approve.

- Middle School CDEs: 20 Access to 3 state wide leadership conferences, one is for middle school members only (grades -8)

- Middle School Opening and Closing Ceremonies CDE; Essay Contest

- Most of the opportunities for Middle School/Jr High students are at the local level who determines what those activities are. While most likely not statewide, all of these activities could be available certain locations in the state and not others.(i.e. some chapters have junior officers, some have separate jr high chapters with officers and others do not)

- None

- Our state does not allow FFA Membership from middle school student per our Constitution.

- quiz bowl, compact tractor driving

- We don't have any state level opportunities for middle school/junior high students. It is a locally controlled program so it varies between schools.

- We have a state specific Opening and Closing CDE team (Novice PP) that is open only to 7-9 grade students.

APPENDIX E

TEXT RESPONSES FOR POSITIVE OUTCOMES FOR STUDENTS WHO ENROLL IN MIDDLE SCHOOL AGRICULTURAL EDUCATION PROGRAMS

What are other positive outcomes for students who enroll in your state's middle school/junior high agricultural education programs?

- Increased high school agricultural education enrollment
- Minimal skill attainment
- More likely to participate in other activities, increase rate of success in other courses.
- Increase enrollment in the high school programs.
- Applied understanding of life sciences concepts Meets the requirements for a middle school CTE course Increased FFA membership throughout high school Direction for elective coursework throughout high school
- More time in a positive learning environment
- Develop positive professional relationship with instructor (who in most cases will be the same instructor in high school). Good transition.
- n/a
- Another benefit is the MS serving as a "feeder" program to the HS. By the time the MS students reach HS, if they are sold on AgEd/FFA, the seem to have less trouble getting enrolled in an AgEd course at HS. Our HS programs that have solid MS programs the teachers at the HS feel less like a dumping ground for students that some other HS programs that don't have MS programs.
- Increased potential for scholarships and FFA awards (proficiency and state stars)
- We see these programs as the gateways to many high school programs. Our goal is to get students excited and involved.
- N/A

- Students in middle school are at a very impressionable age, enrolling a middle school student in ag ed is vital creating a society of well informed citizens.
- Currently it helps local high school agricultural education programs recruit students.
- Development of career development skills.
- leads to career opportunities in agriculture.
- An interest in science through participation in the Agriscience Fair.
- early introduction to ag ed and FFA;
- N/A
- builds self-confidence in students, starts them thinking about opportunities beyond high school.

APPENDIX F

TEXT RESPONSES FOR DISADVANTAGES FOR STUDENTS WHO ENROLL IN MIDDLE SCHOOL AGRICULTURAL EDUCATION PROGRAMS

What are some other disadvantages for students who enroll in your state's middle school/junior high agricultural education programs?

- My biggest concern is developing middle grades agriculture education curriculum that is different from what we have developed for agriculture students in grades 9-12.
- Some schools are not supportive of middle school students becoming FFA members and missing school. This can be discouraging for those members.
- With most of our middle school students getting less than a full year of instruction there is a disconnect between students and teachers.
- All courses are offered on a 9 weeks rotation, which limits external leadership and FFA opportunities for the members.
- Students pay the same amount of National FFA Dues as a high school student but there are not as many opportunities for them as high school students. The only strong fit we have found in our state is using the 212 curriculum.
- Lowers local 4-H membership
- Often times only 9 week rotation so may not see students all year long.
- n/a
- none
- The are limited in what they can participate in. Most middle grades instructors are 10 month limiting the ability or willingness of the instructor to participate in state convention, camp, or other summer activities.
- No FFA benefits above the Chapter level.
- N/A

- None
- none
- N/A
- Limited opportunities to continue ag. education in the high school due to scheduling.

APPENDIX G

TEXT RESPONSES TO BENEFITS FOR STATE'S WHO HAVE MIDDLE SCHOOL AGRICULTURAL EDUCATION PROGRAMS

What are other benefits your state experiences due to having middle school/junior high agricultural education programs?

- Small schools are able to maintain full time teaching contracts for teachers by offering junior high agricultural education
- None
- Most school districts in our state are very small. Having middle school ag ed programs allows ag teachers in those small school districts to be full-time.
- We have seen an increase in participation in the Agriscience Fair for middle school grades for 3 of the separate middle school programs.
- Greater sense of accountability for older students as role models for younger students. Greater opportunity to engage students in ag ed before they are directed elsewhere by guidance departments.
- Increased participation in state wide events
- Helping students identify career interests earlier to guide course taking in high school.
- n/a
- n/a
- N/A
- Because it is a small local controlled program it is hard to identify specific benefits on the state level. The biggest one is that it helps recruit students into the high school program, which ultimately increases overall enrollment/membership.
- High level of achievement in high school FFA
- better scores on state tests

- Greater participation in FFA, with a longer relationship moving into Collegiate level. These students are more likely to attend post-secondary education as opposed to those who were "put" into AgEd by a guidance counselor.

- Increased pool of potential state FFA officers

- Helps to maintain the enrollment and demand for courses in Ag. Ed at the high school level

APPENDIX H

TEXT RESPONSES TO DISADVANTAGES FOR STATES WHO HAVE MIDDLE SCHOOL AGRICULTURAL EDUCATION PROGRAMS

What are some other disadvantages your state experiences due to having middle school/junior high agricultural education programs?

- Finding agriculture teachers to teach these middle school students. We already have a teacher shortage in our secondary agriculture programs. Mixing high school students and middle grades students at FFA activities could be a problem?
- None.
- Offering additional opportunities to engage younger students at events. I would call this a challenge instead of a disadvantage.
- Increase the number of highly qualified teachers needed in the state when we are already operating at a deficit
- Often times the teacher is the same at both the secondary and jr high level so there is a choice of serving middle school or offering another high school course. Not all districts offer a middle school program for various reasons: i.e. location, # of feeder districts, licensure, district priorities, etc.
- n/a
- With students in MS programs taking AgEd courses on an exploratory or "Connections" level, the teacher gets them for 9 weeks (in some instances) in an entire year. That is slowly changing to a semester system, but it is still difficult.
- There are no disadvantages for the student
- I feel the questions above are very subjective and vary based on locality
- None
- We are trying to work through the age differences between students in middle school, high school, and graduate members. We have limited the opportunities for middle school students to participate in conventions, leadership events, and state fair - many of the type of events that require over night travel.

- N/a
- Because it isn't a large-scale program, the state doesn't see any of the direct disadvantages.
- none
- The only issue we have (which is a good problem) is the growth is so high and rapidly increasing with new MS programs being added, that we need to change the format of our events for FFA because we have so many excited MS FFA Members participating.
- not enough MS programs to serve MS students at the state FFA level; Dept of Ed does not recognize middle school programs in the definition of secondary agricultural education
- N/A

APPENDIX I

TEXT RESPONSES TO INFLUENCE OF ENROLLMENT

In your opinion, does enrollment in middle school/ junior high agricultural education courses help increase enrollment in high school agriculture education courses?

- No. In most schools in our state the students that are in our Jr. High programs would typically enroll in high school programs whether or not they experienced Ag-Ed in the Jr. High level.

- No, as many other high school classes compete for time slots in the students regular course load. Schools continue to increase the number of required classes for graduating thus making it more difficult to take agriculture related classes,

- This is a huge driver in high school enrollment. Students get a feel for the program and are drawn into high school courses. In many school districts, junior high agricultural education is a required class. Many students would have never enrolled in high school as an elective if they didn't have that junior high experience that forced them out of their interest area at the time.

- Perhaps? We haven't conducted any meaningful research on this question so we really don't know the answer to the question at this point in time.

- It depends on the program. Most schools that offer middle school ag require it as a 9-week rotation with other exploratory courses. If the program is good, high school enrollment will increase. If the program isn't very good, high school enrollment will decrease. Overall I would say it increases high school enrollment because they gain an interest and want to take the classes even when counselors are pushing them to take other classes instead.

- Yes I do. The introduction of careers, subjects within agricultural, do spark an interest and the student can then develop their plan of study with in the high school curriculum.

- Yes it does or at least should. The main factor is having a good teacher in a middle school program.

- Yes, membership has increased in the all the high schools that have a middle school program. The more active the high school program, the more engaged the respective middle school program has become.

- slightly. we dont have enough middle school chapters for me to comment.

- Yes. Students enrolled in a quality middle school ag ed/FFA experience become passionate about the opportunities afforded to them through ag education. They are willing (and their parents are willing) to speak up for their right to enroll in CTE courses when guidance departments may try to direct them elsewhere. Engaging students at the middle school level not only develops them as an individual sooner, it may be the only opportunity that student would have to take an agriculture course.

- Yes, it involves students that would otherwise be uninformed about the program.

- Yes. The middle school is helpful not only from a literacy standpoint, but from a standpoint of exposing students to careers they had not thought about before especially in the context of agriculture. Building a positive relationship with students at this level can feed the secondary level. While there are not as many opportunities at the junior high level, they often see what lies ahead for them at the high school level and provides some interest/motivation to continue on.

- yes, It allows students to gain insight into Agricultural Education before their schedules become full in high school.

- Absolutely! Strong MS programs help grow strong HS programs, as long as the students (and their families) have a positive AgEd experience in MS. The students are more likely to land in AgEd courses in HS, and if they are not given an AgEd course, they and their parents are often sold enough that they go work to get the schedule rearranged so that they do have an AgEd course.

- Yes. Students are inspired and desire to learn more about Ag or desire to remain an FFA member

- Middle school programs are feeder programs to the high school level and open the door to expose students to the opportunities that await them in high school.

- It depends on the program and the teacher at the middle school program.

- Yes. If the teacher is doing his/her job, the middle school courses serve as motivation to recruit and maintain high school students.

- I think it can have a positive impact. Many of our programs have an opportunity for students to be involved in an Ag Exploration course at sometime between 7th and 9th grade, it is more difficult to see students in all years of the middle school experience or as freshman.

- Yes - Feeder program. Get them hooked at an earlier age.

- Yes, just the exposure to those students for them to know the other possibilities in the high school.

- It all depends on the quality of the teacher. A bad middle school teacher will deter a student from enrolling at the high school because they did not have a good middle school experience or a bad high school teacher will turn off students that had a great middle school experience.

- Yes, students who take an ag ed class in middle school are much more likely to follow through with an ag ed course plan in high school. It the responsibility of middle school teacher to set the stage for what students will have the opportunity to learn about and participate in in high school ag ed courses.

- Yes in those small schools where students do everything. It helps get the students involved earlier.

- I believe so. Exploratory classes help students discover high school classes.

- Reaching students earlier sparks an interest in ag. and results in higher enrollment in our programs.

- Absolutely. The students have a connection with the high school because the high school FFA Members come down to visit. They also know the HS advisors b/c they get to do events prior to having HS Orientation. Therefore, they are more likely to attend and enroll in the HS Agriscience program and know the pathway they want to go into earlier.

- yes. in the two schools that conduct MS programs, I believe enrollment is positively impacted at the high school level

- Yes

- Yes. Once students get to high school there paths tend to be quickly set out for them. With prior exposure to agricultural education and FFA, they can better resist efforts to push them in a particular direction and insist upon wanting agriculture and FFA to be included in their path.

- I think that having middle school programs would help to increase the enrollment at the high school level because it gives the students a focus/drive to fulfill their

interest in the areas of agriculture. Teachers on both levels play a vital role in the success of programs on both levels.

APPENDIX J

PRENOTICE EMAIL

From: Shelby Adair [shelby.adair@ag.tamu.edu]
Sent: Friday, March 6, 2015 1:47 PM
To: Panel
Subject: Your Expertise is Needed in this Study!

Good afternoon,

You are invited to take part in a research study being conducted by Dr. John Rayfield, Associate Professor and Shelby Adair, Master of Science student from the Department of Agricultural Leadership, Education, and Communications at Texas A&M University. We are currently conducting a study for my master's thesis that examines and updates the status of middle school agricultural education in the United States.
Middle school agriculture education is an important component to agriculture education. Little research has been done regarding these middle school programs and this study seeks to establish enrollment numbers, FFA membership, classes taught, funding, and advantages and disadvantages of middle school agricultural education programs across the United States. The purpose of this study is to determine important baseline information over middle school agricultural education in the United States and gain valuable data to help examine and improve middle school agricultural education across the country.

You have been chosen to participate due to your knowledge of agricultural education in your state. The only way we can obtain this data to help improve middle school agricultural education is by contacting people like you. Your responses to this survey are very important and will help in updating information relating to middle school agriculture education in the United States. This is a short survey and should take approximately 15 minutes to complete. You will be receiving the link to our survey on Tuesday, March 10th, so please keep a look out for it in your email.

Your participation in this survey is entirely voluntary and all of your responses will be kept confidential. An information sheet has been attached to this email regarding this study. If you are not the person of contact for this information, please email me at shelby.adair@ag.tamu.edu. If you know the correct person of contact for this information, please include that in your email.

We really appreciate your time in helping us with this study! Should you have any further questions or comments, please feel free to contact me or Dr. John Rayfield at jrayfield@tamu.edu.

Thank you so much again for your help,

Dr. John Rayfield and Shelby Adair

APPENDIX K

FOLLOW UP EMAIL 1

From: Shelby Adair [surveys@ag.tamu.edu]
Sent: Tuesday, March 10, 2015 7:30 AM
To: Panel
Subject: Your Help is Needed in this Study!

Good morning,

You have been selected to take part in a research study being conducted by Dr. John Rayfield, Associate Professor and Shelby Adair, Master of Science student from the Department of Agricultural Leadership, Education, and Communications at Texas A&M University.

The purpose of this study is to determine important baseline information over middle school agricultural education in the United States and gain valuable data to help examine and improve middle school agricultural education across the country. This survey will address enrollment numbers, FFA membership, classes taught, funding, and advantages and disadvantages of middle school agricultural education programs across the United States.

You have been chosen to participate due to your knowledge of agricultural education in your state. The only way we can obtain this data to help improve middle school agricultural education is by contacting people like you. Your responses to this survey are very important and will help in updating information relating to middle school agriculture education in the United States. This is a short survey and should take approximately 15 minutes to complete. It is suggested that you have access to enrollment and FFA membership numbers for 2013-2014 before starting the survey for quicker and easier completion. The link to the survey is below.

Follow this link to the Survey:

${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

If you are not the person of contact for this information, please email me at shelby.adair@ag.tamu.edu. If you know the correct person of contact for this information, please include that in your email. We really appreciate your time in helping us with this study! Should you have any further questions or comments, please feel free to contact me or Dr. John Rayfield at jrayfield@tamu.edu.

Thanks for your time,

Dr. John Rayfield and Shelby Adair

Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}

APPENDIX L

FOLLOW UP EMAIL 2

From: Shelby Adair [surveys@ag.tamu.edu]
Sent: Tuesday, March 17, 2015 7:30 AM
To: Panel
Subject: Your Help is Needed in this Study!

Good morning ${m://FirstName},

We recently sent you an email asking you to respond to a brief survey that evaluates middle school agricultural education programs. Spring is a very busy time for state FFA staff and we understand how valuable your time is, but we would really appreciate your input. It is people like you that make it possible for graduate students like myself to conduct research. You have been invited to take part in a research study being conducted by Dr. John Rayfield, Associate Professor and Shelby Adair, Master of Science student from the Department of Agricultural Leadership, Education, and Communications at Texas A&M University.

The purpose of this study is to determine important baseline information over middle school agricultural education in the United States and gain valuable data to help examine and improve middle school agricultural education across the country. This survey will address enrollment numbers, FFA membership, classes taught, funding, and advantages and disadvantages of middle school agricultural education programs across the nation. This is a short survey and should only take about 15 minutes of your time. It is suggested that you have access to enrollment and FFA membership numbers for 2013-2014 before starting the survey for quicker and easier completion.

We greatly appreciate your time in helping us with this study. Should you have any further questions or comments, please feel free to contact me by email at shelby.adair@ag.tamu.edu or Dr. John Rayfield at jrayfield@tamu.edu

The link to the survey is below.

Follow this link to the Survey:

${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Thank you so much for your time,

Dr. John Rayfield and Shelby Adair

Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}

APPENDIX M

FOLLOW UP EMAIL 3

From: Shelby Adair [surveys@ag.tamu.edu]
Sent: Tuesday, March 24, 2015 7:30 AM
To: Panel
Subject: Reminder: Middle School Agricultural Education Research Project

Good morning,

I know this is an extremely busy time of the year for state FFA staff. We are hoping you may be able to give about fifteen minutes of your time to take part in a research study being conducted by Dr. John Rayfield, Associate Professor and Shelby Adair, Master of Science student from the Department of Agricultural Leadership, Education, and Communications at Texas A&M University.

This survey will address middle school agricultural education enrollment numbers, FFA membership, classes taught, funding, and advantages and disadvantages of these programs. This is a short survey and should only take about 15 minutes of your time. It is suggested that you have access to enrollment and FFA membership numbers for 2013-2014 school year before starting the survey for quicker and easier completion.

Thank you in advance for completing this survey. Your responses are valuable for updating middle school agricultural education information! Should you have any further questions or comments, please feel free to contact me by email at shelby.adair@ag.tamu.edu or Dr. John Rayfield at jrayfield@tamu.edu

The link to the survey is below.

Follow this link to the Survey:

${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Thank you so much for your time,

Dr. John Rayfield and Shelby Adair

Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}

APPENDIX N

FOLLOW UP EMAIL 4

From: John Rayfield [surveys@ag.tamu.edu]
Sent: Tuesday, March 24, 2015 7:30 AM
To: Panel
Subject: We Need Your Response!

Good morning,

We understand how valuable your time is, but we would really appreciate you taking the time to complete our survey. Your responses are important and necessary for improving middle school agricultural science education. This study is for Shelby Adair's thesis, Master of Science student at Texas A&M University.

This survey will address middle school agricultural education enrollment numbers, FFA membership, classes taught, funding, and advantages and disadvantages of these programs. This is a short survey and should only take about 15 minutes of your time. It is suggested that you have access to enrollment and FFA membership numbers for 2013-2014 school year before starting the survey for quicker and easier completion.

Thank you in advance for completing this survey. We greatly appreciate your time.

The link to the survey is below.

Follow this link to the Survey:

${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Thank you so much for your time,

Dr. John Rayfield and Shelby Adair

Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}

APPENDIX O

FINAL FOLLOW UP EMAIL

From: Shelby Adair [surveys@ag.tamu.edu]
Sent: Tuesday, March 24, 2015 7:30 AM
To: Panel
Subject: Last Chance to Respond to the Survey

Good morning,

This is the final reminder for you to complete the survey regarding middle school agricultural education. I know this is an extremely busy time for you and I would greatly appreciate your time and effort in completing this survey.

This survey will address middle school agricultural education enrollment numbers, FFA membership, classes taught, funding, and advantages and disadvantages of these programs. If your state does not have any middle school agricultural education involvement, please just select "no" at the beginning of the survey and it will be complete. This is a short survey and should only take about 15 minutes of your time. It is suggested that you have access to enrollment and FFA membership numbers for 2013-2014 school year before starting the survey for quicker and easier completion.

The link is below:

https://agrilife.az1.qualtrics.com/SE/?SID=SV_8CdxJY3i6X1t0Ff

Again, thank you so much for your time. I greatly appreciate it. Should you have any questions, please contact me at shelby.adair@ag.tamu.edu

Sincerely,

Dr. John Rayfield and Shelby Adair

APPENDIX P

IRB APPROVAL LETTER

DIVISION OF RESEARCH

Research Compliance and Biosafety

TEXAS A&M UNIVERSITY

DATE: February 23, 2015

MEMORANDUM

TO: John Rayfield
ALRSRCH - Agrilife Research - Ag Leadership, Education & Communication

FROM: Dr. James Fluckey
Chair
Institutional Review Board

SUBJECT: Expedited Approval

Study Number: IRB2015-0089

Title: An Examination of Middle School Agricultural Education in the United States

Approval Date: 02/23/2015

Continuing Review Due: 01/15/2016

Expiration Date: 02/15/2016

Documents Reviewed and Approved:

Submission Components			
Study Document			
Title	Version Number	Version Date	Outcome
qualtrics survey software	Version 1.0	02/10/2015	Approved
recruitment email	Version 1.0	02/10/2015	Approved
Study Consent Form			
Title	Version Number	Version Date	Outcome
Texas A&M University Human Subjects Protection Program	Version 1.0	02/09/2015	Approved

Document of Consent: Waiver approved under 45 CFR 46.117 (c) 1 or 2/ 21 CFR 56.109 (c)1

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